Communities and Diamonds

2015 **Annual Report** of the Government of the Northwest Territories under the Ekati, Diavik and Snap Lake Socio-Economic Agreements

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Executive Summary

The Communities and Diamonds Annual Report is produced partly in fulfillment of commitments made by the Government of the Northwest Territories (GNWT) in Socio-Economic Agreements (SEAs) with the mining companies operating in the Northwest Territories (NWT). There are currently two operating mines, one mine under construction, and one mine under care and maintainance. The operating mines are the Dominion Diamond Corporation Ekati Mine and the Diavik Diamond Mine. Gahcho Kue is currently under construction and the De Beers Snap Lake Mine went into care and maintainance in December 2015.

The purpose of the Communities and Diamonds Report is to determine if mine activity may be affecting residents of Yellowknife and seven Small Local Communities (SLCs) in the NWT by examining socio-economic indicators for changes since 1996, when the first mine, Ekati, began construction. The seven SLCs are Behchokǫ̀, Detah, Gamètì, Łutselk'e, Ndilǫ, Wekweètì, and Whatì. The report examines the data based on the GNWT Sustainable Development Policy five-point framework:

1. community, family and individual well-being;
2. cultural well-being and traditional economy;
3. non-traditional economy;
4. net effect on government; and
5. sustainable development.

Overall, the 2015 Communities and Diamonds Report highlights that the mining industry has provided employment and economic opportunities for businesses and residents across the NWT. Since the start of construction of Ekati, employment has increased, residents have less reliance on income assistance, education levels are improving, and businesses are seeing significant benefits. While challenges still exist, the report provides an outline of areas where improvements can be made to benefit NWT communities. Areas of community, family and individual well-being that have seen positive change in both Yellowknife and the seven SLCs included a lower birth rate for teens, fewer injuries and poisonings, and a decrease in the number of tuberculosis cases. Yellowknife also saw an increase to the number of households owned, while SLCs saw improvements to households in core needs, and fewer households with six or more people. Negative impacts observed for Yellowknife and SLCs were increases in the number of sexually transmitted infections, as well as increases in multiple crime indicators. SLCs saw increases to the potential years of life lost, and increases in both violent and federal statute crimes that were not seen in Yellowknife.

Cultural well-being and traditional economy indicators did not change in Yellowknife, while SLCs saw an increase in the number of people hunting and fishing, but a decrease in the number of people speaking Aboriginal languages.

Non-traditional economy saw increases to average income and education metrics in both Yellowknife and the SLCs. Yellowknife showed decreases to both employment and participation, while the SLCs showed increases in these same categories. As well, SLCs showed less use of income assistance and lower levels of unemployment.

The net effect on government has been an increase in demands for government programs and services. Examples of these include the addition and maintenance of infrastructure (e.g. roads), the need to address social stresses caused by development and income growth, the need to track environmental effects, and the need to invest in areas such as training to better equip Northerners to acquire jobs and fill business demand around them. To address these impacts, the GNWT makes strategic investments to realize the greatest benefit from development and mitigate adverse impacts. Resource development also brings money to the GNWT through property, fuel and corporate income taxes paid by the mines. In 2015, the GNWT shared 50 percent of resource royalties from the diamond mines with Aboriginal governments.

Table of Contents

5 **Executive Summary**

8 **Introduction**
Background information | Purpose of the report | Communities
Choice of indicators | Data sources

12 **Possible Effects of Mine Activity**

14 **Cultural Well-Being & Traditional Economy**
Fur sales | Trappers | Aboriginal language

18 **Wages**
Income assistance | Employment | Unemployment

19 **Education**

24 **Health & Families**
Potential years of life lost | Suicide rate | Teen births | Single-parent families | Injuries | Sexually transmitted infections | Tuberculosis
Children receiving services | Family violence

36 **Crime**

40 **Housing**
Co > need | Ownership | Crowding

Table of Contents

Business 44
NWT gross domestic product | Mineral development strategy
Economic opportunities strategy

Net Effect on Government 48

Glossary 50
Words to know

Appendix A 52
Company predictions on mine activity

Appendix B 58
Industrial, social and political events

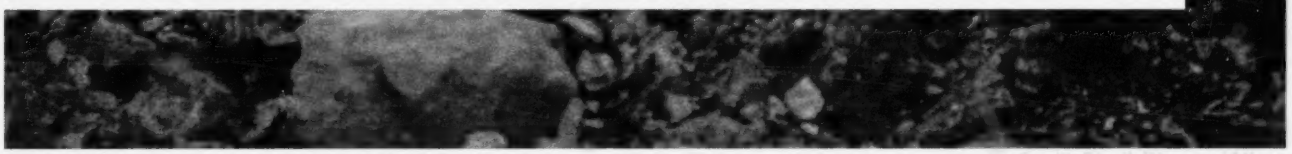
Appendix C
Data tables | See attached disk on back cover of the report

Cover Photo Credit: Rashead Bhamjee

Background Information

This report is prepared in fulfillment of a commitment made by the Government of the Northwest Territories (GNWT) in the Socio-Economic Agreements (SEAs) that it has with mining companies in the Northwest Territories (NWT). These include: Dominion Diamond Corporation, Ekati Mine (Ekati); Diavik Diamond Mine (Diavik); De Beers Snap Lake Mine (Snap Lake); and Gahcho Kué.

SEAs are follow-up programs to environmental assessments. In an environmental assessment, a developer must predict what effect the proposed mine may have on the people and communities of the NWT. Under the SEA, the GNWT monitors the effects of the mines and works to ensure SEA commitments are met and in line with the original predictions.



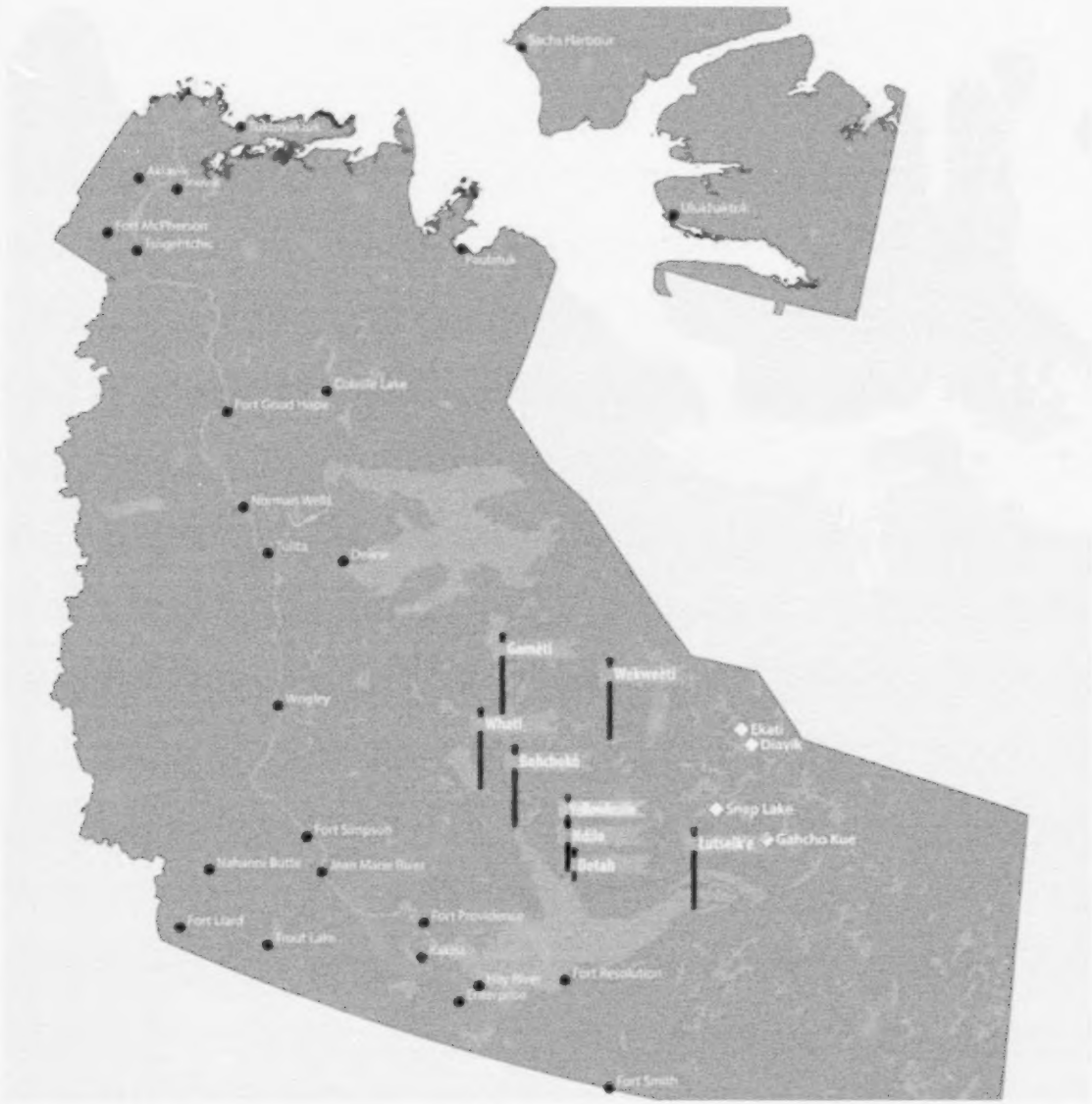
Credit: Diavik Diamond Mines

Purpose of the Report

This report examines a number of socio-economic variables to see if, and how much, each has changed since diamond mining began in 1996. The relative changes in indicators are presented on page 13.

Communities

This report provides data for the city of Yellowknife and seven smaller NWT communities. The seven smaller communities are Behchokǫ̀, Detah, Gamèti, Łutselk'e, Ndilǫ, Wekweètì, and Whatì. The map below displays these small local communities (SLCs) with green flags. The charts in the report always represent the SLCs with the same shade of green, Yellowknife with yellow, other NWT communities with dark grey, and the NWT as a whole with blue.



Choice of Indicators

An indicator is a measure that shows the state of something. After public consultation a set of indicators was developed which relate to the possible effects we may see from mining. These indicators were negotiated into the SEA. There have been some changes over time but the basic list of indicators applies broadly to all mine development.

The GNWT promotes and supports responsible development of natural resources for the social and economic benefit of all NWT residents. Using the GNWT Sustainable Development Policy 53.02 the GNWT looks at sustainable economic development through the lens of a five-point framework. The five groups are:

1. community, family and individual well-being;
2. cultural well-being and traditional economy;
3. non-traditional economy;
4. net effect on government; and
5. sustainable development.

Data Sources

The data used for the indicators in this report has come from various sources including: GNWT, Royal Canadian Mounted Police, NWT Bureau of Statistics, Statistics Canada and other sources. Due to the dates surveys are conducted and the time before survey data is released, not all data is current at time of publication.

Both N'dilo and the North Slave Métis Alliance are communities under the SEA. However, data is not always available for these groups. Appendix C includes any data that is available for those communities. The data source for each indicator is shown below each graph in the report and below each table in Appendix C. Appendix C includes all data that was used in this report, community-level data, where available, as well as some other indicators not presented in the report.

Credit: Rashaad Bhamjee

Indicators Identified in the SEAs

The table below lists the indicators required under each mine's SEA, grouped under the five-point framework.

Ekati	Diavik	Snap Lake	Page
Community, Family and Individual Wellness			
number of potential years of life lost			24
number of injuries	age standardized injuries	age standardized injuries	29
number of suicides			25
number of communicable diseases	communicable diseases (sexually transmitted infections, tuberculosis)	communicable diseases (sexually transmitted infections, tuberculosis)	30
number of teen births			26
	single-parent families/lone-parent families	lone-parent families	27
number of children receiving services	children in care	children in care	32
number of complaints of family violence	number of women and children referred to shelters	number of women and children referred to shelters	35
number of alcohol and drug-related crimes	police-reported crimes: violent, property, drug-related, other	police-reported crimes: violent, property, drug-related, other	36
number of property crimes			
housing indicators			40
Cultural Well-Being and Traditional Economy			
	ratio of home language use to mother tongue, by major age group	ratio of home language use to mother tongue, by major age group	16
	percentage of workforce-aged group engaged in traditional activities	percentage of workforce-aged group engaged in traditional activities	15
Non-Traditional Economy			
average income of residents	average income	proportion of high-income earners	App. C
number of social assistance cases	social assistance cases	income support cases	18
employment levels and participation	employment	employment participation rate	23
high school completion	number of people 15+ with less than Grade 9	number of people 15+ with a high school diploma	20
	registered businesses, bankruptcies and start-ups	registered businesses, bankruptcies and start-ups	N/A
Sustainable Development			
	secondary industry data and initiatives		N/A
Net Effect on Government			
	net effects on government of the project		48

Possible Effects of Mine Activity

The mining industry has provided employment and economic opportunities for businesses and residents across the NWT. Since the first diamond mine began production in 1998, employment has increased, residents are less reliant on income assistance, education levels have improved, and businesses have seen significant benefits. In 2014, the three operating diamond mines contributed over 3,200 person-years of employment and contributed over $653 million to Northern businesses, of which, about 33% were to Northern Aboriginal businesses.

The table to the right shows the indicators in this report and how they have changed since 1996 when the first diamond mine began construction. These changes may result from the mines alone, or from a combination of mines and other factors.

Credit: Rasheed Bhamjee

Red arrows (▲▼) indicate changes viewed as negative. Green arrows (▲▼) indicate changes viewed as positive. If no significant change ocurred then (/) was used.

Indicators	Direction of Change	
	Small Local Communities	Yellowknife
Cultural Well-Being and Traditional Economy		
Figures 1-3 : Fur sales	N/A	N/A
Figure 4: Aboriginal Language Use (Age 15-24)	▼	/
Figure 5: Aboriginal Language Use (Age 15+)	▼	/
Non-Traditional Economy		
Figure 6: Income Assistance	▼	/
Figure 7: Less than Grade 9 Education	▼	▼
Figure 8: Greater than High School Education	▲	▲
Figure 9: Employment Rate	▲	▼
Figure 10: Unemployment Rate	▼	/
Figure 11: Participation Rate	▲	▼
Community, Family and Individual Well-Being		
Figure 12: Potential Years of Life Lost	▲	/
Figure 13: Suicides	/	/
Figure 14: Birth Rate for Teen Females	▼	▼
Figure 15: Single-Parent Families	▲	▲
Figure 16: Physician Diagnosed Injuries & Poisonings	▼	▼
Figure 17: Nurse Diagnosed Injuries & Poisonings	N/A	N/A
Figure 18: Sexually Transmitted Infections	▲	▲
Figure 19: Tuberculosis Cases	▼	▼
Figure 20: Children Receiving Services	N/A	N/A
Figure 21: Spousal Assault	/	/
Figure 22: Women and Children in Shelters	N/A	N/A
Figure 23: Shelter Bed Days	N/A	N/A
Figure 24: Total Crimes	▲	▲
Figure 25: Violent Crimes	▲	/
Figure 26: 'Other' Criminal Code Crimes	▲	▲
Figure 27: Property Crimes	▲	▲
Figure 28: Federal Statute Crimes	▲	/
Figure 29: Household in Core Need	▼	▲
Figure 30: Households Owned	/	▲
Figure 31: Household Crowding	▼	/
Business		
Figure 32: NWT GDP Sectors	N/A	N/A
Figure 33: Trend in NWT GDP Sectors	N/A	N/A
Figure 34: Revenue Distribution	N/A	N/A

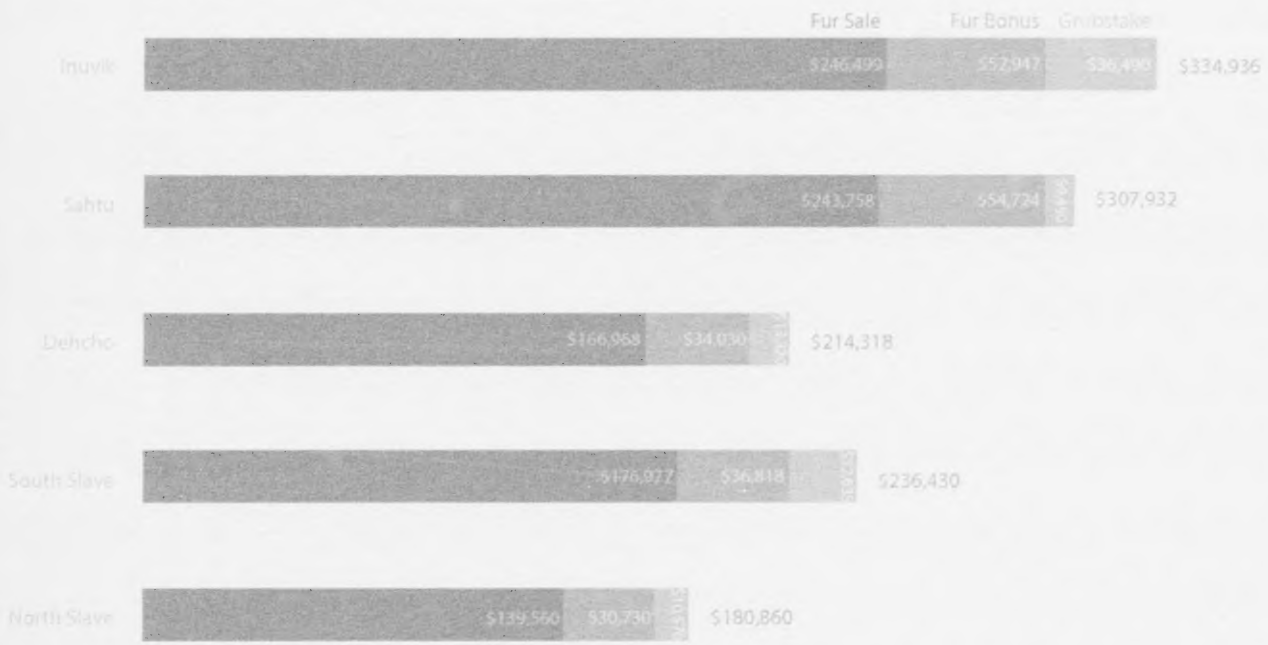
*Changes to reported indicators from the 2014 report are due to discontinued data and requests for new indicators from communities

Traditional Economy

Genuine Mackenzie Valley Fur Program

The Genuine Mackenzie Valley Fur (GMVF) Program provides NWT Trappers with "one window" access to the international fur auction market for fur harvested in the NWT. In addition, the Program actively markets and promotes fur at international venues through partnerships with other harvesting jurisdictions and the private sector.

Figure 1: NWT fur sale summary - 2014-2015



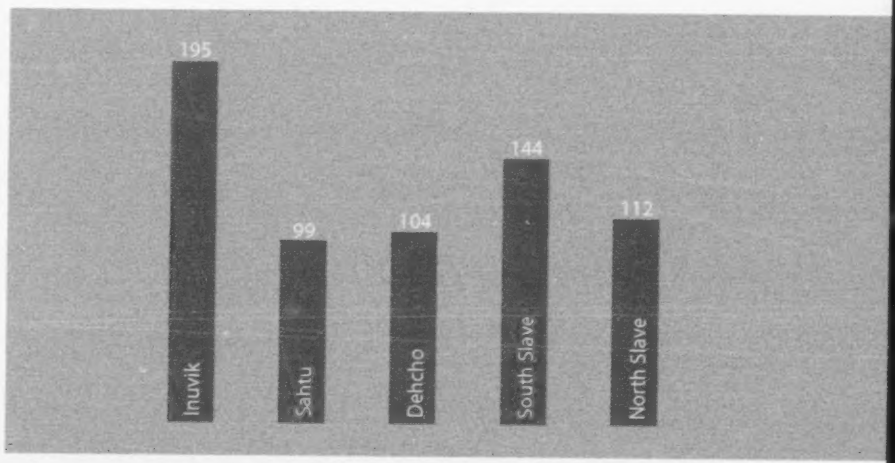
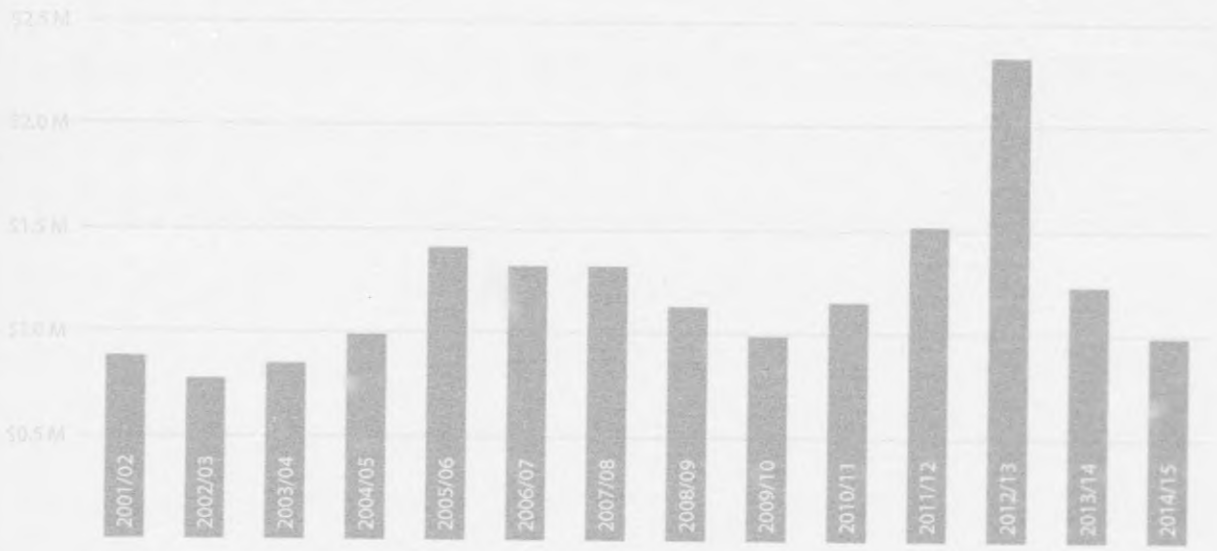


Figure 2: Number of trappers - 2014-2015

Figure 3: Annual fur sales



Aboriginal Languages

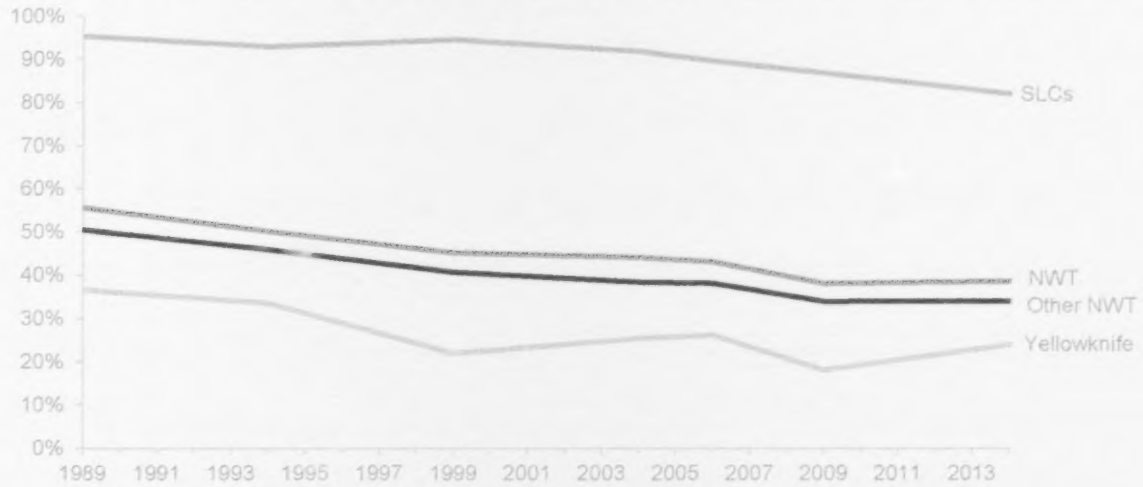
Aboriginal mine employees are immersed in English while they work and live on-site which may affect the use and health of Aboriginal languages in communities. Generally, use of Aboriginal languages has been declining in the NWT since before the diamond mines started up.

Figure 4 describes the percent of Aboriginal persons aged 15 to 24 that are able to speak an Aboriginal language. Information about this group is a good indicator as to whether the languages are being passed along.

Figure 4: Percent of Aboriginal Persons Age 15-24 who can speak an Aboriginal Language,1989-2014

Sources: 1989, 1994 and 1999 NWT Labour Force Survey; 2004, 2009 and 2014 NWT Community Survey; 2006 Statistics Canada Census; 2011 Statistics Canada National Household Survey.

Figure 5: Percent of Aboriginal Persons 15 & Older who can speak an Aboriginal Language, 1989 - 2014



Sources: 1989, 1994 and 1999 NWT Labour Force Survey; 2004, 2009 and 2014 NWT Community Survey; 2006 Statistics Canada Census; 2011 Statistics Canada National Household Survey.

The information in Figure 5 suggests a decline in the use of Aboriginal languages in the SLCs but a slight increase in other NWT communities and Yellowknife. Many factors affect the use of language, therefore there can be no clear evidence that the mines have caused a decline in Aboriginal language use because it was declining in the SLCs and other NWT communities before the start-up of the mines.

Credit: Rashaad Bhamjee

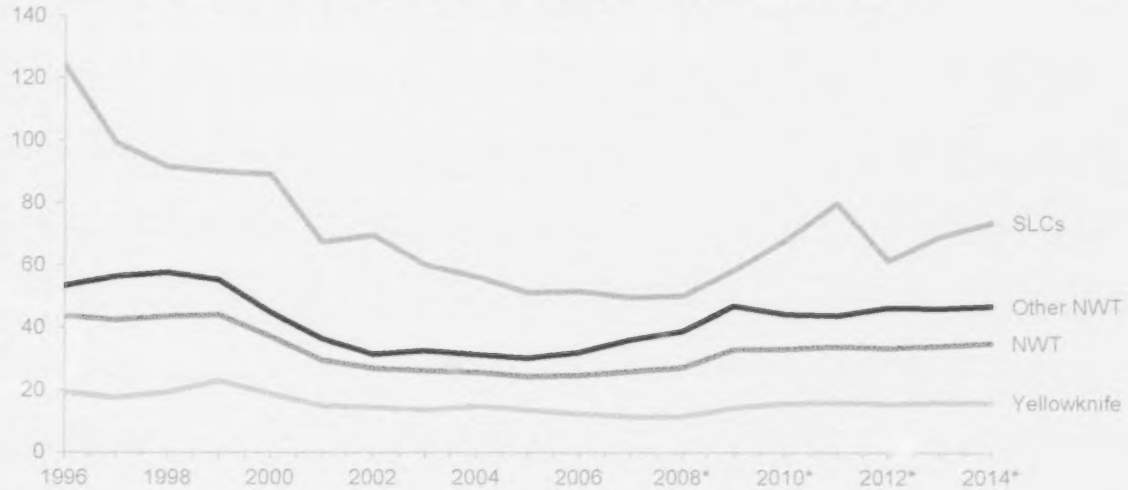
Wages

Income Assistance

The GNWT's Income Assistance (IA) Program helps people when they do not have enough money each month to pay for basic needs like food, shelter and utilities. The IA program also provides enhanced benefits for longer-term supports, such as clothing or disability allowance. The amount of support available to individuals is based on overall needs, where one lives, the size of the family, and the ability to provide his/her own financial resources. The program encourages people to make productive choices, allowing them to achieve self-reliance. A number of improvements have been made to IA with the intent to create stronger programs, with clear policies that benefit Northerners. Food and incidental benefits have increased to allow for the purchase of healthy foods in all Northwest Territories communities. Providing assistance for paying the actual cost of fuel and utilities for eligible IA clients helps ensure clients stay current with the cost of living.

Figure 6 illustrates that there has been an upward trend in the number of average monthly IA cases in SLCs, Yellowknife and the other NWT communities. IA cases dropped significantly around the time the mines started and while the average number of cases has increased in recent years, pre-mine levels have not been reached.

Figure 6: Average Monthly Income Assistance Rate per 1,000 Persons, 1996 - 2014



Sources: Education, Culture & Employment; NWT Bureau of Statistics.
* Due to income assistance program changes in 2007, caution should be used when comparing with pre 2007 data
Notes: Rates before 1996 are not calculated since annual population is not available.

Education

"High school completion" means people who have a high school or grade 12 diploma or a General Education Diploma (GED). "Greater than high school" refers to people who have a trade certificate, college diploma, or university degree. When considering "Population with less than Grade 9 , those who are aged 15 and older with less than Grade 9 are counted along with the people who are still in Grade 9.

Overall the NWT population with less than Grade 9 education has declined significantly since 1989. It is unlikely that this change is due completely to the operating diamond mines as there were some changes in the delivery of education programs throughout the NWT. For example, grade extensions were offered in the smaller communities starting in the late 1990s. This led to an increase in the number of people completing Grade 9 and moving on to high school which has resulted in more high school graduates.

In the SLCs, Yellowknife, and the other NWT communities, the percent of the population with a less than Grade 9 education declined sharply between 1989 and 1994. This coincided with the addition of high school programs in a number of small community schools. The downward trend has continued.

Figure 7: Percent of Population with less than Grade 9 Education, 1989 - 2014

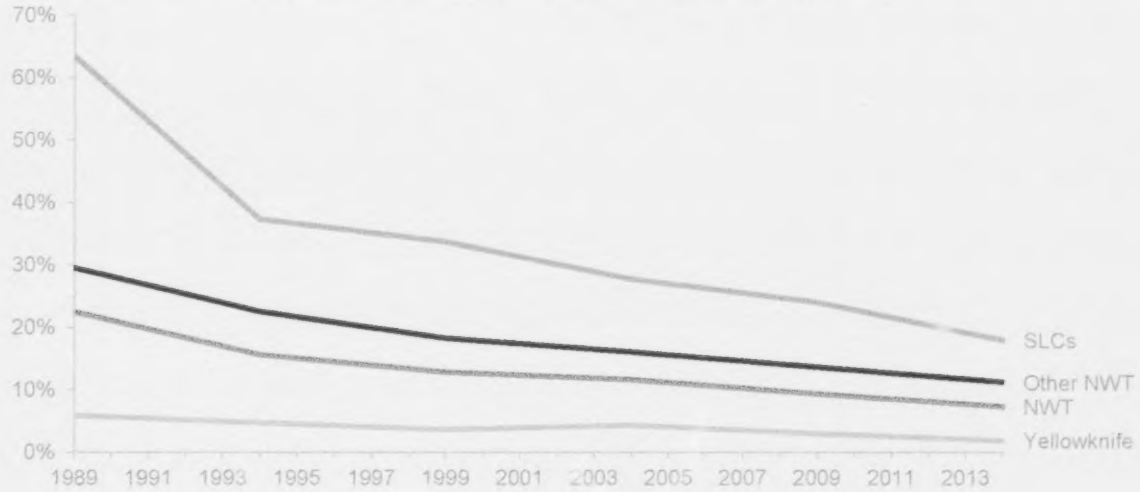
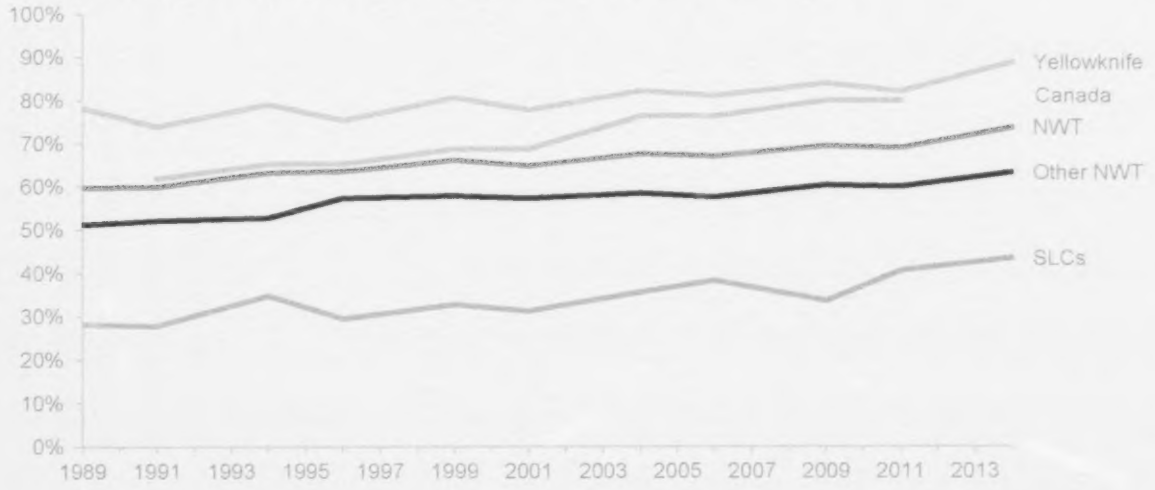


Figure 8: Percent of Population with High School or Greater, 1989 - 2014



There has been a consistent effort on the part of the GNWT and its partners, including the mining industry and the Mine Training Society, to help people become aware of the value of education. The mining industry in particular has done a great deal to highlight economic opportunities and link education to employment. Companies have offered Northern students incentives to stay in school and pursue education through scholarships, training programs and summer employment. Strong partnerships between government, industry and training providers continue to help raise education levels in the NWT.

Figure 8 describes the population with high school or greater. In the SLCs there was a drop in high school completion rates in 2009, which rebounded in 2011 and continued to rise through 2014. In Yellowknife and the other NWT communities the percent of the population with a high school or higher education has continued to rise since 1991 with minor fluctuations.

The NWT population with high school or higher education has increased since start-up of the diamond mines.

Employment

To describe the job situation in the NWT three rates are used:

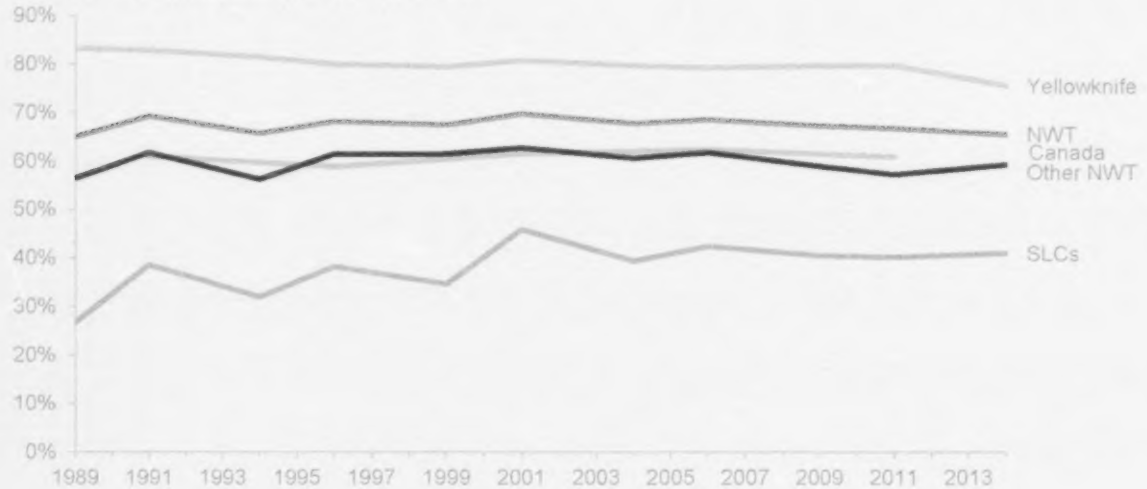
1. Employment rate – the percentage of people age 15 and older who have jobs;
2. Unemployment rate – the percentage of the labour force who are looking for work but not working; and
3. Participation rate – the percentage of people age 15 and over who are working or looking for work.

Employment at the mines is a contributing factor to the employment, participation, and the unemployment rates across the NWT. Job data comes from NWT surveys and from the Statistics Canada census. This information is collected at different times of the year which explains some of the change from one data point to the next.

As illustrated in Figure 9, employment trends in the SLCs show that employment is higher than it was before the diamond mine start-ups whereas the other NWT communities trend has been relatively stable. In Yellowknife employment was decreasing in the before-mine phase and although it has remained relatively stable since 1996, there has been a slight decline in employment since 2011.

The employment rate depends on a variety of factors which are determined by the economy as well as the local employment situation.

Figure 9: Employment Rate, 1989 - 2014



Sources: 1989, 1994 and 1999 NWT Labour Force Survey; 1996, 2001 & 2006 Statistics Canada Census; 2004, 2009 and 2014 NWT Community Survey; 2011 Statistics Canada National Household Survey.
Notes: Comparisons between the labour force survey (LFS) completed by the Bureau of Statistics and the Census should be done with caution. The LFS and NWT Community Survey were completed during the January-March period. The Census was done in May and June. Census indicators are often higher due to seasonal employment activities.

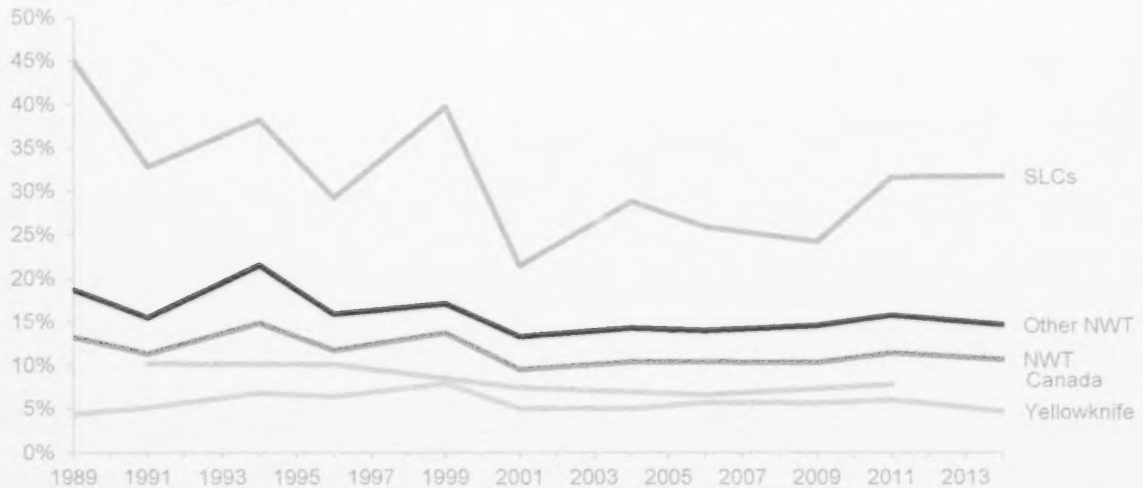
Unemployment

Figure 10 shows, that overall, the unemployment rate has been decreasing since 1989. While there has been some variability over the years, the unemployment rate is lower than before mine start-ups.

In the SLCs, despite yearly fluctuations, the unemployment rate has decreased significantly since mine start-ups. This trend is consistent with the other NWT communities experiencing a decrease in the unemployment rate with minor changes over the years. In Yellowknife, with the exception of a peak in 1999, the unemployment rate remained relatively unchanged since mine start-ups.

It is likely that the presence of the mines, as well as the increase in education levels, were contributing factors to the changes in the unemployment rate.

Figure 10: Unemployment Rate, 1989 - 2014



Source: 1989, 1994 and 1999 NWT Labour Force Survey; 1996, 2001 and 2006 Statistics Canada Census; 2004, 2009 and 2014 NWT Community Survey; 2011 Statistics Canada National Household.
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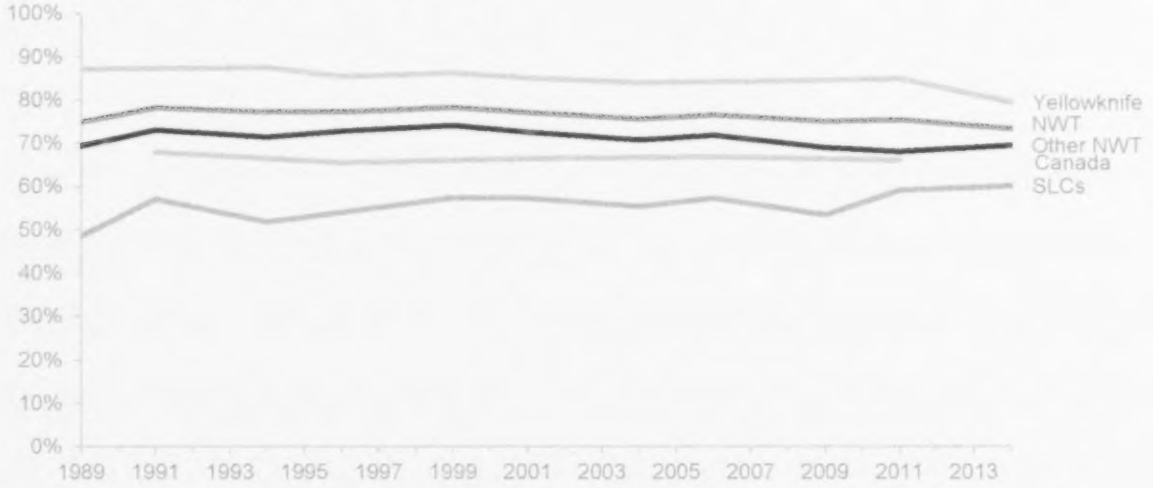
Participation Rate

Figure 11: Participation Rate, 1989 - 2014



Sources: 1989, 1994 and 1999 NWT Labour Force Survey; 1996, 2001 & 2006 Statistics Canada Census; 2004, 2009 and 2014 NWT Community Survey; 2011 Statistics Canada National Household Survey.
Notes: Comparisons between the labour force survey (LFS) completed by the Bureau of Statistics and the Census should be done with caution. The LFS and NWT Community Survey were completed during the January-March period. The Census was done in May and June. Census indicators are often higher due to seasonal employment activities.

As shown in Figure 11, in the SLCs the participation rate has increased from below 50% to above 60%, which means that more people are working or looking for work. There has been minimal variability in the participation rate since mine start-ups. In both the Yellowknife and the other NWT communities the participation rate has been decreasing since mine start-ups.

Health and Wellness

Potential Years of Life Lost

Potential Years of Life Lost (PYLL) shows early deaths[1]. PYLL helps demonstrate the health, well-being, and lifestyle choices that people are making.

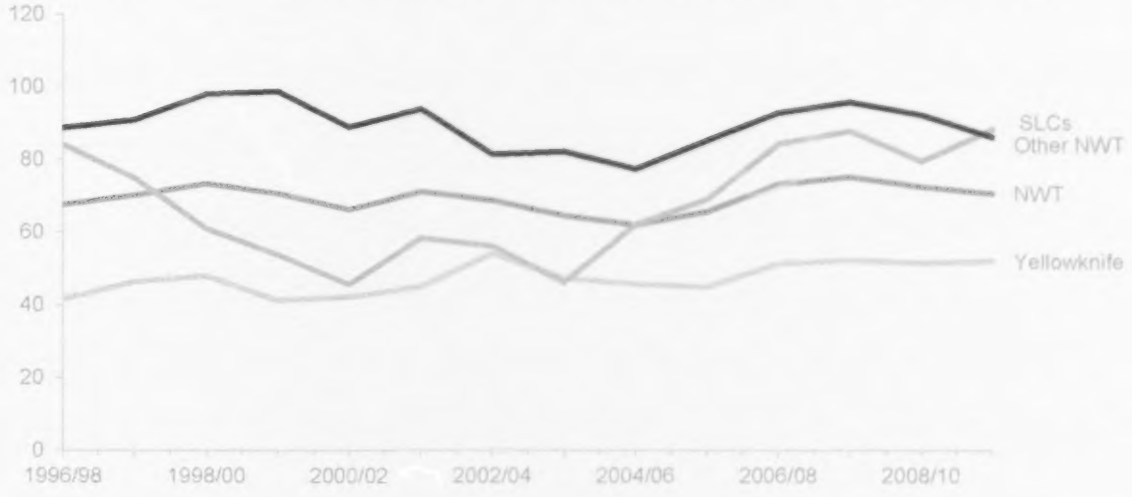
There can be large changes in PYLL rates from one year to the next. To highlight trends more clearly, PYLL is shown as a three-year average.

Prior to the mines the PYLL rate in the SLCs was going down sharply, and has continued to remain within historical boundaries. At this time mining does not seem to have an effect on the PYLL rate in the SLCs. The trend of PYLL in the SLCs is likely due to a natural cycle that cannot be directly attributed to mining. PYLL has remained lower in SLCs than in other NWT communities since mining activity began.

Since 1996, the PYLL rate in Yellowknife has been both higher and lower than in the pre-mine period. It seems to follow a natural cycle that may be unrelated to mining activity.

1 The PYLL for a population is the total of all the years of life lost by those who died before reaching the age of 75, the average age of life expectancy.

Figure 12: Potential Years of Life Lost (<75 Years), Rate Per 1,000 Persons, Three-Year Average



Suicide Rate

While there is no singular cause, suicide is often linked to both social issues and mental health problems including depression, divorce or separation, and drug abuse. The table below shows suicide deaths.

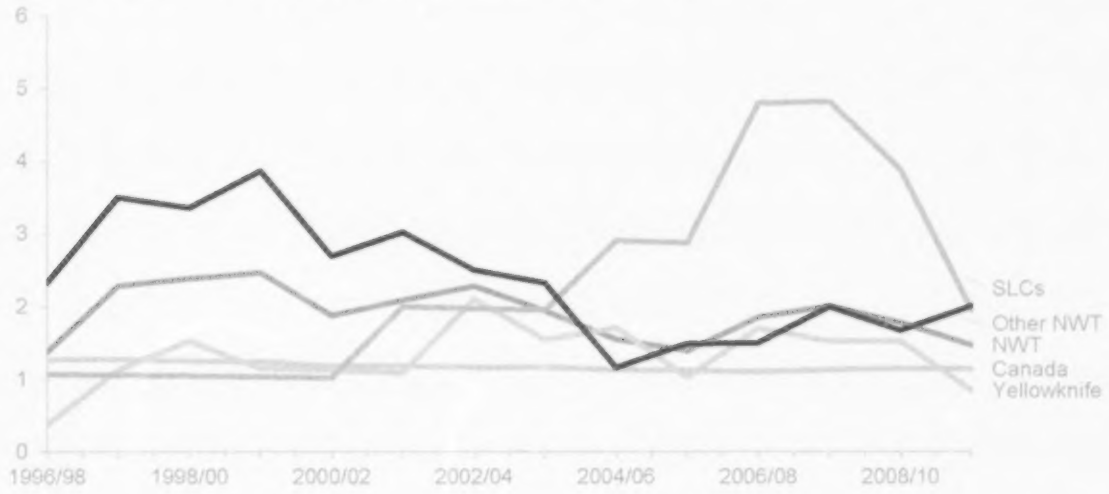
Three-year averages are used to smooth out the year-to-year changes seen with small numbers; readers should still view the trend lines with caution, however, as some areas may only have two or three suicides in a given three-year phase. This makes it hard to judge the data and any trends it may show.

The suicide rate had been going down in small local communities during the pre-mine period. The overall trend since 1995/1997 has been an increase, and in 2004/2006, the suicide rate in small local communities became higher than it had been in the pre-mine phase. Since 2003/2005, it has been higher than the suicide rate in Yellowknife.

For much of the time since 1996, the suicide rate in Yellowknife has been no higher or lower than it was in the before-mine phase. However, it had been going down until 1996/1998 and has gone up since then.

In the other NWT communities the rate has been going down since 1999/2001. The rate of suicides in Canada has also been going down. The rate in the NWT has remained similar before and after the mining phase. There is too little data to say if there is a link between mining and suicide rates in small local communities and Yellowknife.

Figure 13: Suicides, Rate per 10,000 Persons, Three-Year Average



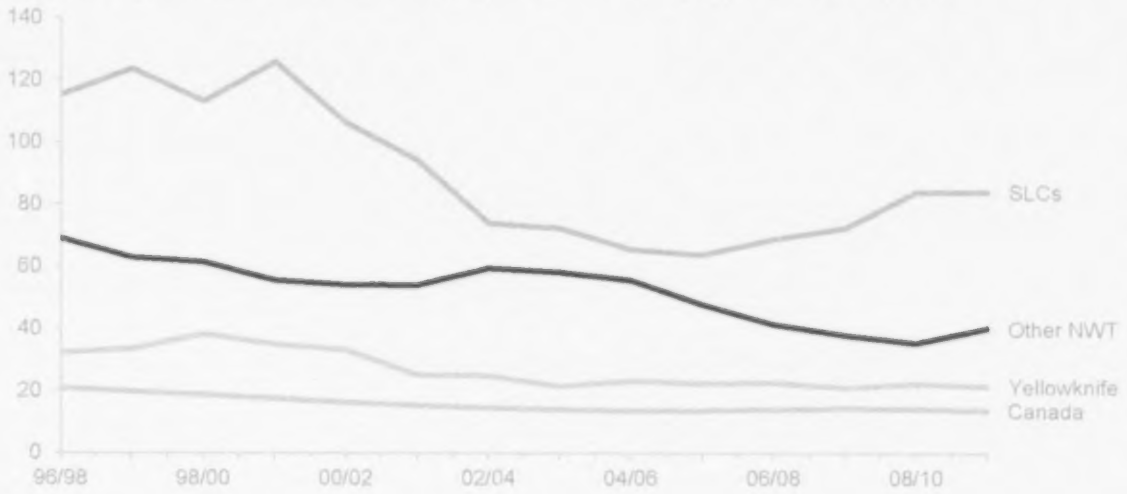
Teen Births

Some teen mothers may be mature enough to raise a child, while others may not be. Stress and lack of maturity may affect the well-being of both the child and parents. Teen mothers are also more likely to be single, which makes it more difficult for them to support their children and increases stress.

In small local communities, the rate of teenage births was steady in the before-mine phase. However, the rate of teenage births was still quite a bit higher than in other NWT communities, including Yellowknife. In the active-mine phase, the rate dropped quickly until 2002/2004, and continued to go down more quickly than in the rest of the NWT or Canada. However, since 2004/2006, it has been going up faster than in Canada, the rest of the NWT and Yellowknife.

In Yellowknife, the rate of teenage births has also been going down since the active-mine phase. Except for a peak in 1998/1999, the drop in the Yellowknife rate has mirrored the drop in the Canadian rate. The data does not indicate the mines have influenced the rate of teen births in Yellowknife.

Figure 14: Birth Rate For Teen Females Aged 15-19 (# Per 1,000), Three Year Average



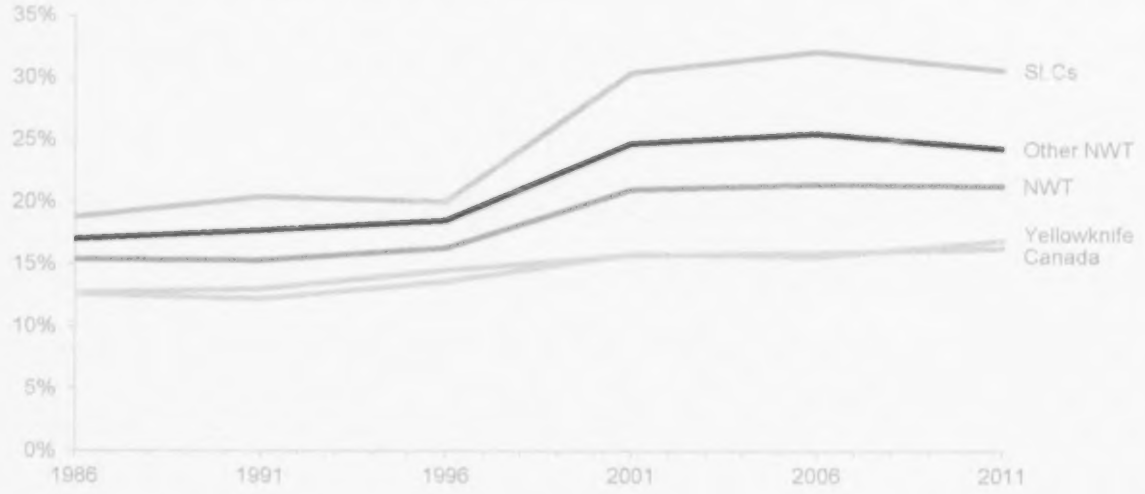
Single Parent Families

Single-parent families typically have lower incomes which can make providing basic needs more difficult. Single-parent families also face additional challenges such as finding daycare.

In SLCs the rate of single-parent families had been steady before the mines, but went up quickly after the mines began operations. The rate in other small and regional communities has also gone up, but not as quickly as in small local communities. The data suggests there may be a link between the rate of single-parent families in small local communities and mining activity.

In Yellowknife, the trend for single-parent families has also been going up, but not as much as in small local communities. These changes are similar to those seen across Canada; therefore it may be assumed the mines have not influenced the Yellowknife rate.

Figure 15: Percent Single Parent Families



Injuries

Physician and nurse diagnosed injury indicators measure the number of people whom a doctor or nurse have said to have been injured. Injuries include broken bones, severe burns, cuts or bruises and poisonings. One person can have more than one injury per year[1].

Keeping track of injuries tells us if more reckless actions or violence are taking place. These changes can happen when a community goes through a lot of change quickly.

The figures on the next page show the rate of physician and nurse diagnosed injuries and poisonings. The rate is for age-standardized injuries, which lets us look at groups of people at different ages and compare them over time. For example one community may have a greater number of older residents than another. Older residents tend to have more injuries requiring medical care than younger residents[2].

Since 1994/95, the rate of physician-diagnosed injuries has been going down in the NWT, including Yellowknife, small local communities and the other NWT communities. The trend of decreasing physician diagnosed injuries has been consistent since before the mines opened. The data does not suggest physician diagnosed injuries are linked to mining activity.

Most people who are injured in small local communities are seen by nurses. The rate of nurse diagnosed injuries in small local communities and the NWT as a whole have increased slightly since 2000/01. However, the way nurses record injuries changed in 2000. Due to this change, injuries reported by nurses cannot be compared between the before-mine and active-mine phases.

1 For more information on data limitations for doctor-diagnosed injuries, see data tables in Appendix C.

2 For more information on age-standardization, see NWT Department of Health and Social Services, *Injury in the Northwest Territories, 2000-2009*, p. 77.

Credit: Kayli and Rhiannon

Figure 16: Physician diagnosed injuries and poisonings - Age standardized rate per 1,000

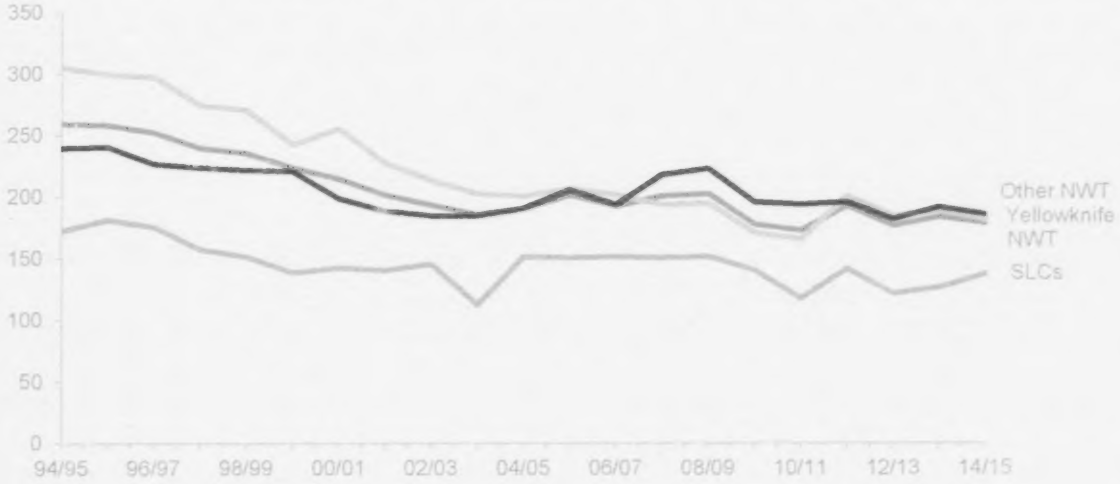
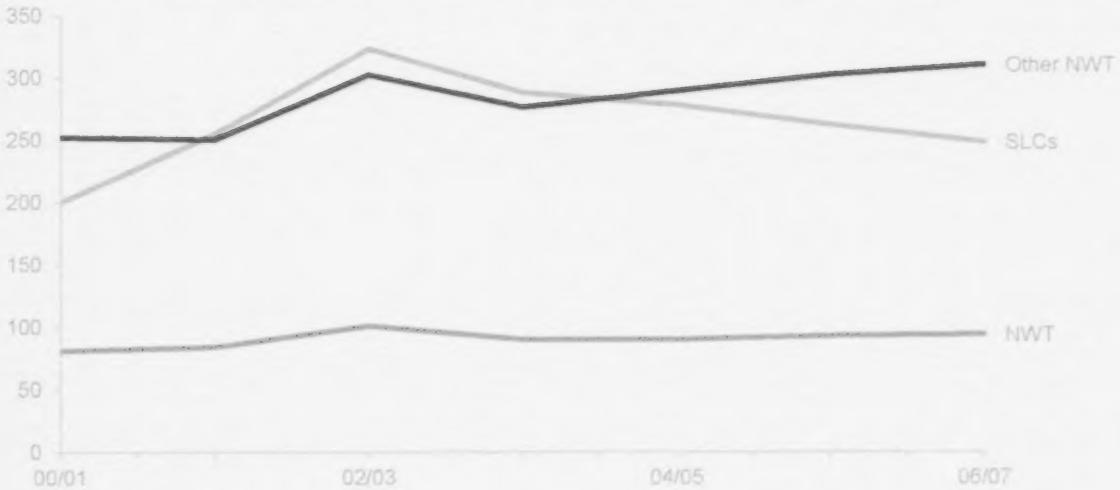


Figure 17: Nurse diagnosed injuries and poisonings - Age standardized rate per 1,000



Sexually Transmitted Infections

Sexually transmitted infections (STIs) can affect people's health and well-being. Risky sexual behavior can increase the chance of getting an STI. This report includes data on some of the most common STIs[1].

In 2008, the NWT experienced an outbreak of syphilis in smaller NWT communities and among a high-risk transient population in Yellowknife[2]. There had been only four cases in the NWT in the ten years before the outbreak[3]. The syphilis outbreak was first seen in Calgary and Edmonton and then spread into northern Alberta[4]. It is likely that the NWT outbreak came from Alberta.

Since the active-mine phase, the number of STIs in small local communities has been going up. However, the STI rate in small local communities was higher than other NWT communities before mining began. The STI rate has been going up across the NWT, but more quickly in the small local communities. The STI rate in the small local communities dropped following the 2008 outbreak and had remained below the pre-2006 rate; however the rate has been going up since 2011. Many factors influence STI rates. It is not possible to say whether STIs rates are impacted by mining activity.

Until 2005, the STI rate in Yellowknife was no higher or lower than the before-mine phase. The rate has gone up more quickly than in other parts of the NWT. STI rates have also gone up in the rest of Canada. Yellowknife's STI rate remains below the NWT average. The Yellowknife STI rate does not appear to be influenced by mine activity.

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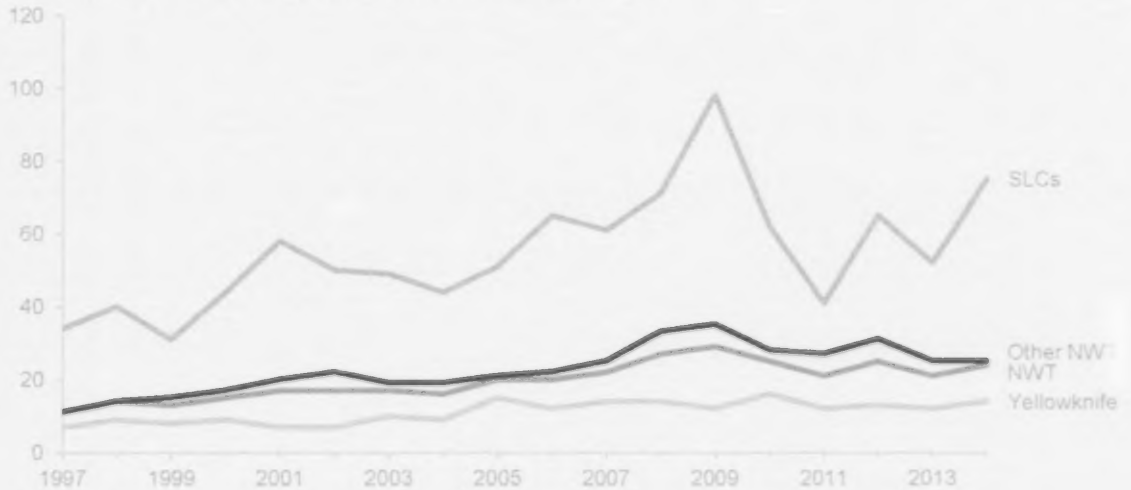
1 These include Chlamydia, gonorrhoea and syphilis. There are many other types of STIs such genital herpes, HIV/AIDS, human papillomavirus (HPV) and lymph granuloma venereum (LGV).

2 Northwest Territories Health Status Report, 2010

3 Case numbers include congenital, infectious and non-infectious syphilis. Syphilis case numbers are from the NWT Department of Health and Social Services, NWT Communicable Disease Registry found in the following departmental publications: Syphilis Update – To Week Ending January 30, 2009 [2000-2008], Epi North Winter 1999/2000, p. 19 [1999] and Epi North, Spring 1999, p. 18 [1998].

4 Alberta Blood-borne Pathogens and Sexually Transmitted Infections Surveillance Working Group. Alberta Blood-borne Pathogens and Sexually Transmitted Infections Surveillance Report 2008 (Edmonton, AB: Alberta Health and Wellness, 2008).

Figure 18: Sexually Transmitted Infections, Rates per 1,000



Tuberculosis

Tuberculosis (TB) is a disease caused by bacteria that attacks the lungs but can also spread to the brain, lymph nodes and bones. Although TB can be treated with antibiotics it is still a health concern. The annual rate of new TB cases has not changed much over the last 10 years. However, outbreaks still occur in the NWT and the TB rate in the NWT is much higher than in the rest of Canada.

TB rates are higher in all small NWT communities compared to regional centers and Yellowknife . There was a TB outbreak in the mid-1990s but the number of new cases soon went back to normal. The outbreak was in the pre-mining phase. The data does not show a relationship between mining activity and new TB cases in the small local communities.

New TB cases in Yellowknife have remained consistent before and after mining. The data does not show new TB cases in Yellowknife are influenced by mining activity.

Figure 19: Tuberculosis cases, Three-year average

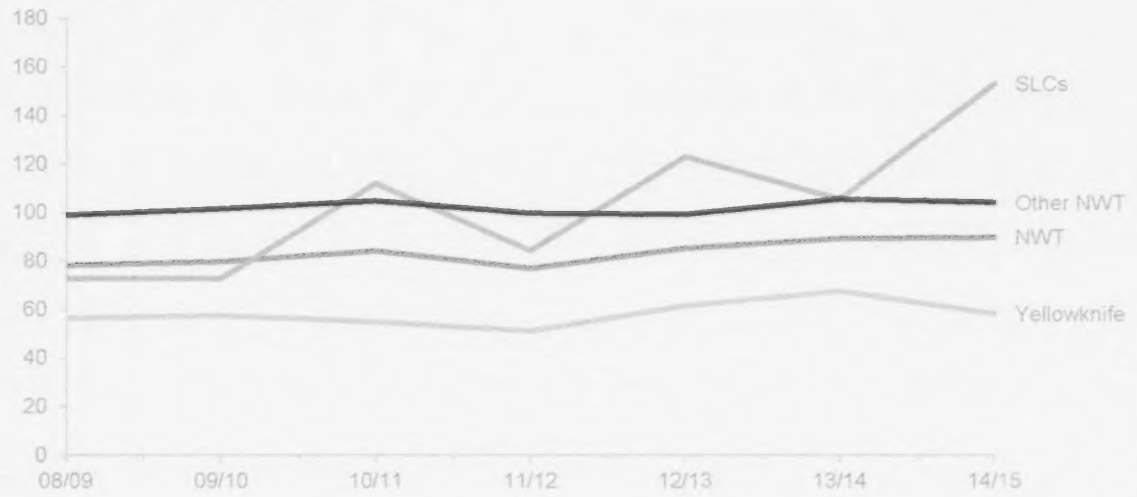
Children Receiving Services

Child welfare policy was changed in the late 1990s. In 1998, the *Child and Family Services Act* created a new choice for children at risk, allowing a child welfare worker to work with the child and family in their home and make a "plan of care" promise. The *Act* lets parents get help for their children or family without giving up their parental rights. This means that rates for children receiving services from the before-mine and from the active-mine phases cannot be compared.

In small local communities the number of children receiving services went up in 2009-2010, down in 2012-2013, then up again in 2014/15. At this time there is not an established trend. Small local communities often see the number of children receiving services go up and down. For example, if five children from one house are receiving services in a small community this could cause the rate for that community to increase if there are not many people living in that community. At the time of publishing this report, population estimates for children were not available and 2014 estimates were used. The 2014/2015 results should be interpreted with caution.

The number of children receiving services in Yellowknife did not change much from 2008/09 to 2014/15.

Figure 20: Children receiving services



Credit: Rashead Shamjee

Family Violence

The *NWT Protection Against Family Violence Act* defines family violence as actions that cause bodily harm, damage to property, actions or threats that cause fear for safety of oneself or children, sexual abuse, forcible confinement, as well as psychological, emotional or financial abuse.

A report released by Statistics Canada in January 2015 revealed that when analysing 2013 police-reported data , the NWT had the second highest rate of family violence in the country, following Nunavut. Just under half of all victims of family violence in Canada were victimized by a current or former spouse. The report highlights the impacts of spousal violence, including links to a heightened risk of chronic illness later in life, higher stress levels, an increased dependence on alcohol or drugs, risk of job loss and economic vulnerability. For children, being the victim of family violence or exposure to such violence can negatively impact their development and health, as well as their performance in school and socially.

Many factors increase the risk of family violence, such as unemployment, social isolation, substance abuse, mental health issues, low education rates, and common-law unions. Many of these factors are common in the NWT. Research also shows that both men and women experience and commit family violence; however, women tend to experience violence more often and more severely .

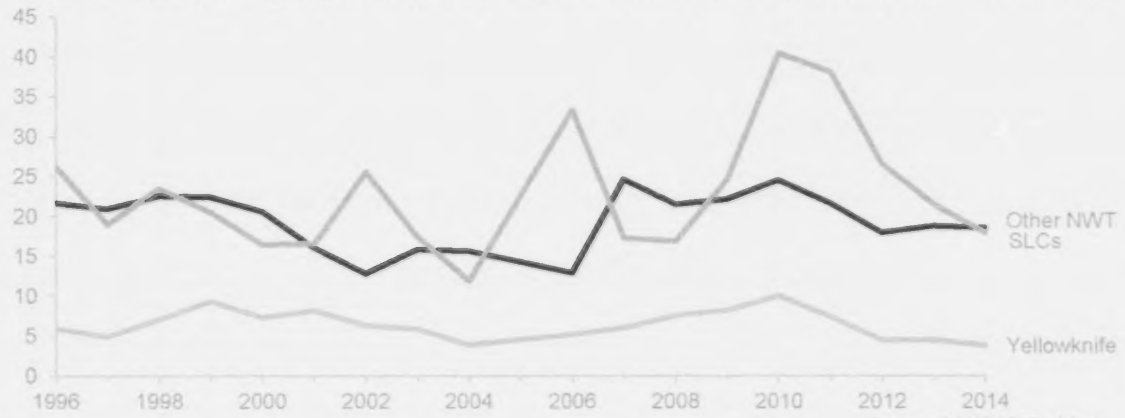
Understanding the actual levels of family violence in the NWT or Canada is not easy. This is because violent Criminal Code offences are reported as spousal assault only if the victim and offender are known to be spouses, and some victims do not report family violence out of fear or loyalty.

The indicators tracked in this report only show a partial picture. Police-reported spousal assaults, as well as data about shelter use, help give some measure of family violence in the NWT. Front-line workers suggest that many victims do not use shelters.

When the mines first became operational, the rate of spousal assault in small local communities was approximately 26 per 1,000 population aged 15 and over (Figure 21). Since then there has been variation in the rate, reaching a high point in 2010. However, 2014 saw a continuation of the decline below the 1996 spousal assault rate. The trend in Yellowknife seems to be relatively flat with some peaks and lows. Its 2014 spousal assault rate continued to be lower than the rate seen in 1996.

Overall, a clear link cannot be drawn that would indicate mining activity has been a factor in the rate of reported spousal assault in the NWT.

Figure 21: Rate of Police-Reported Spousal Assault Incidents per 1,000 Persons Aged 15+, 1996 to 2014



Source: RCMP "G" Division

Note: Detah and Ndilǫ statistics on spousal assault rates are captured under Yellowknife. Data for 2005 not available.

Admission of Women & Children to Shelters

The admission of women and children into NWT shelters peaked in 2002/2003, but steadily dropped in 2005/2006 and has not changed much since. Based on the number of admissions, the number of bed days gives us an idea of how many days, on average, each woman or child stayed in a shelter that year. The number of bed days went up from 2006/07 to 2009/10 but has continued to drop since. However, before-mine and active-mine phases cannot be compared since information from the shelter was only collected from 1999 and onward.

Figure 22: Admission of women and children to NWT shelters

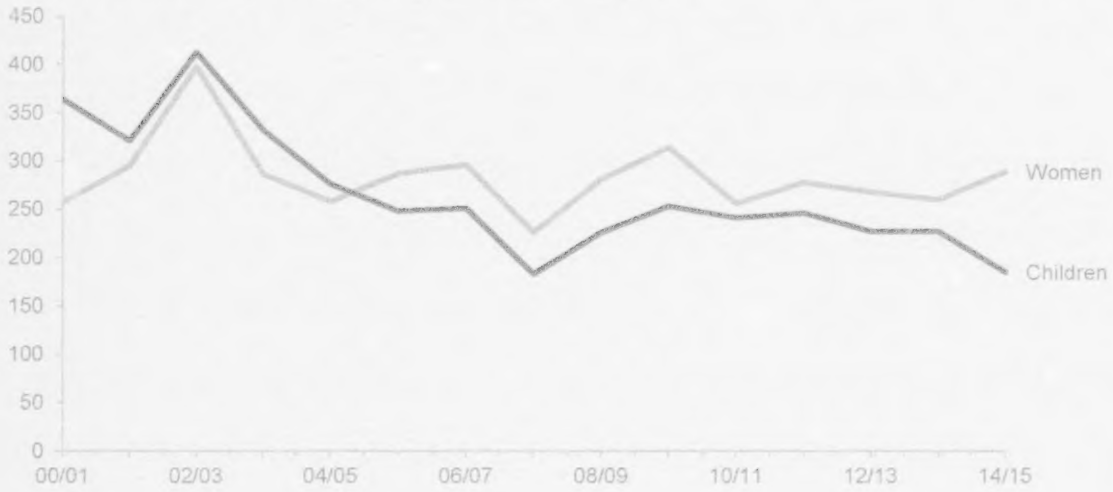


Figure 23: Total number of shelter bed days

Crime

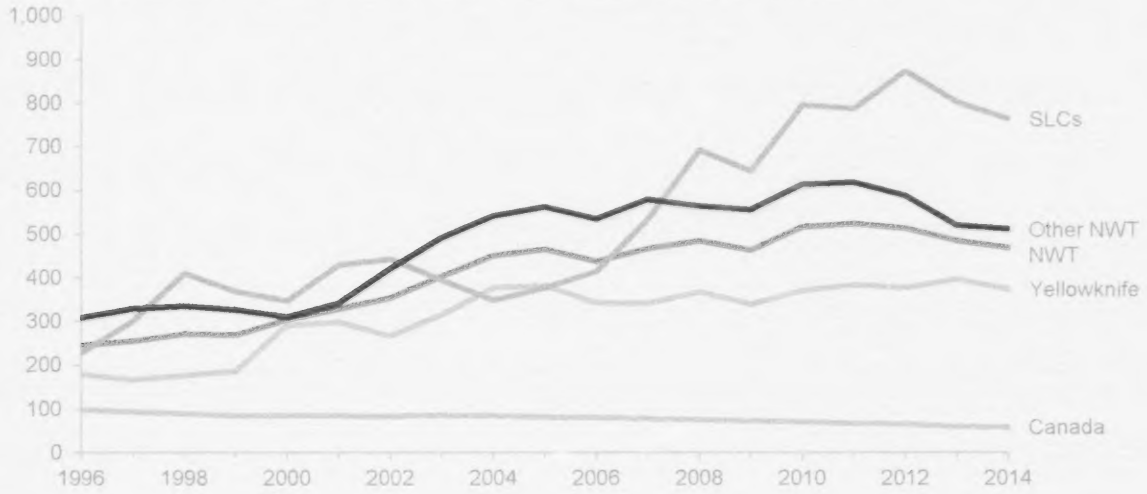
The communities of Detah and Ndilǫ do not have RCMP detachments at this time, and are patrolled out of Yellowknife. Wekweètì does not have an RCMP detachment at this time and is patrolled out of Behchokǫ̀. While Gamèti does not have a permanent detachment in the community, it has two dedicated RCMP members that are based out of Behchokǫ̀. Whatì and Łutselk'e both have detachments staffed by two RCMP members each. In communities without RCMP detachments, criminal incidents are reported as if they occurred in the community with the detachment that provides the policing services. For example, crimes that occur in Detah and Ndilǫ (patrolled out of Yellowknife) would show as part of the Yellowknife data. The only exception to this is Gamèti, whose statistics began being recorded separately in 2008.

A change in the way the RCMP collects and classifies some types of crimes has affected the rates that are reported for the NWT. There was a change in Yellowknife RCMP reporting between 1999 and 2000, and a similar change in reporting took place between 2000 and 2002 in the rest of the NWT. Some crimes that used to be reported as territorial offences (including *Liquor Act* offences) are now classified as *Criminal Code* offences (such as 'mischief' or 'disturbing the peace'). This change caused an increase in the rates for different reported crimes under the *Criminal Code*.

Crime rate increases in the NWT are largely driven by incidents of 'disturbing the peace' (classified as 'other' *Criminal Code* offences), and 'mischief' (classified as property offences). Both of these offences tend to be linked with substance abuse.

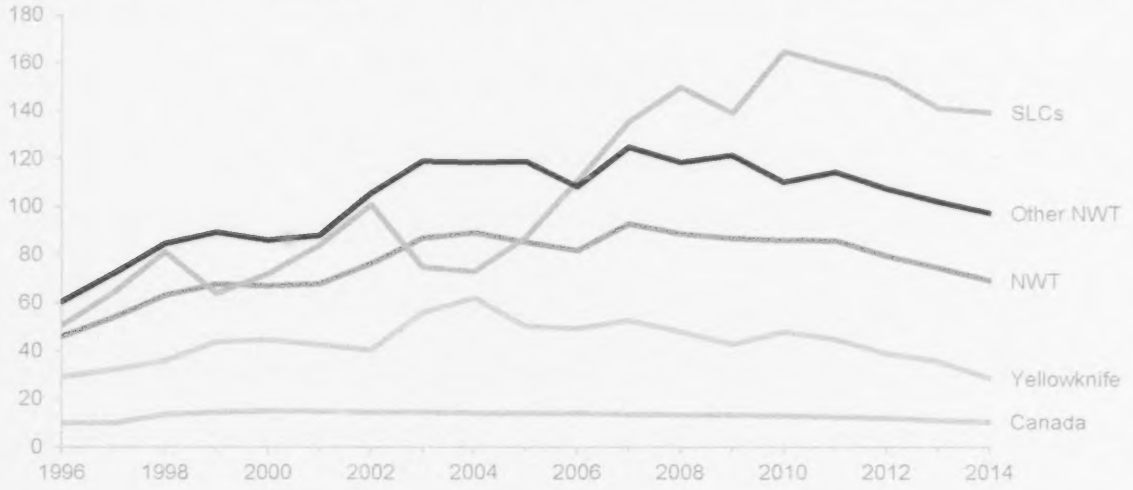
Increased crime has an impact on police services and many other parts of the justice system. More violent crime may lead to a demand for more resources for policing, corrections, and victims services. These crimes can also lead to an increased need for shelters, social workers, and other community supports.

Figure 24: Rate of Total Police Reported Crimes per 1,000 Persons 1996 – 2014



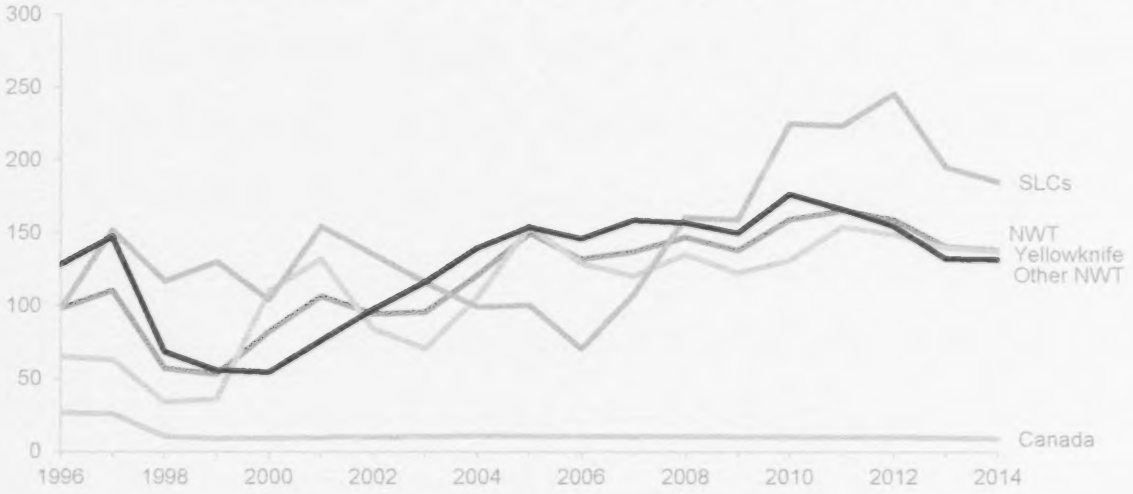
Source: Statistics Canada, Incident Based Uniform Crime Reporting Survey, Canada

Figure 25: Rate of Police Reported Violent Crimes per 1,000 Persons 1996 – 2014



Source: Statistics Canada, Incident Based Uniform Crime Reporting Survey. Canada

Figure 26: Rate of Police Reported 'Other' *Criminal Code* Offences per 1,000 Persons 1996 – 2014



Source: Statistics Canada, Incident Based Uniform Crime Reporting Survey. Canada

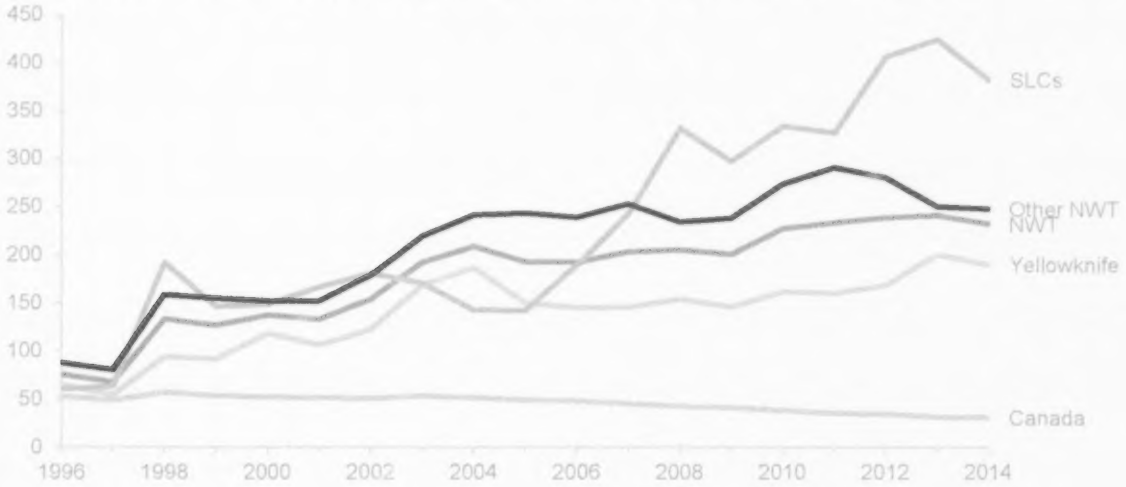
While the overall rate of police-reported crime has generally been increasing across the NWT, the small local communities continue to experience the highest rates (Figure 24). The rate of violent crime in the small local communities has experienced some fluctuation over the past several decades. It has been declining since reaching a high point in 2010, which was over three times the rate seen in 1996 (Figure 25). The rate of 'other' *Criminal Code* offences has also experienced years of fluctuation and reached a peak in 2012. However, a decline continued in 2014 (Figure 26). Property crime climbed between 2005 and 2013, with some periods of decline, including between 2013 and 2014 (Figure 27). Federal statute crimes (non-*Criminal Code* offences) saw a sharp decline between 2011 and 2014, after five years of consecutive increase (Figure 28). The majority of these are *Controlled Drugs and Substances Act* violations (i.e. drug crimes).

The overall police-reported crime rate in Yellowknife has remained stable since 2010 (Figure 24). The rate of violent crime in Yellowknife reached a high point in 2004, but has returned to a similar rate seen in 1996 (Figure 25). The rate for 'other' *Criminal Code* offences has remained fairly stable since reaching a high point in 2011 (Figure 26). Property crime has declined after reaching a peak in 2013 (Figure 27). The rate of federal statute crimes (other than *Criminal Code* offences) reached a high point in 2010, but has declined passed the rate seen in 1996 (Figure 28). Similar to the small local communities, the majority of federal statute crimes in Yellowknife are *Controlled Drugs and Substances Act* violations, such as possession of cannabis.

While it appears that there may be a causal relationship between mining activity and the rise of crime in Yellowknife and small local communities, it is not possible to make this conclusion definitively as there is a large array of factors that influence trends in crime.

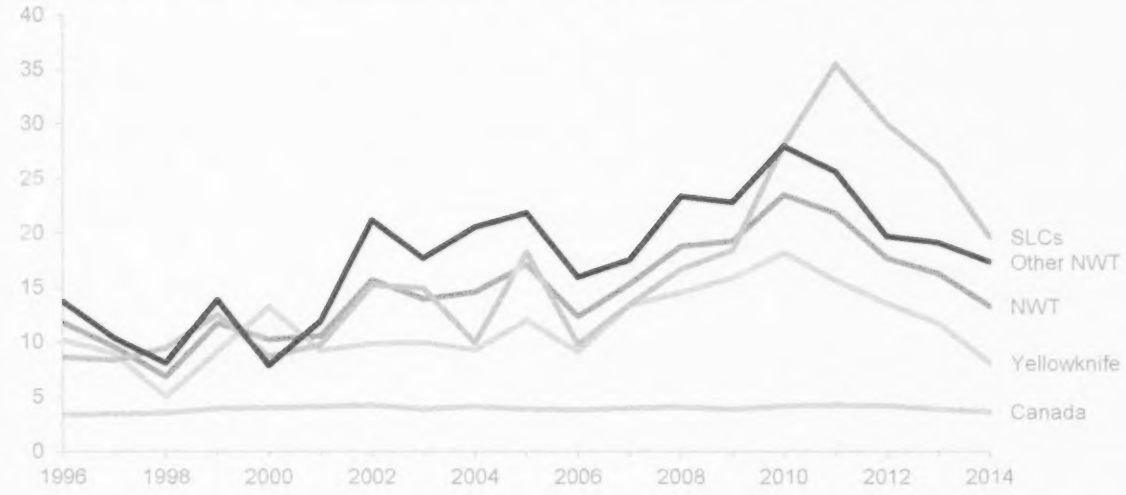
Credit: Rashaad Bhamjee

Figure 27: Rate of Police Reported Property Crimes per 1,000 Persons, 1996 – 2014



Source: Statistics Canada, Incident Based Uniform Crime Reporting Survey, Canada

Figure 28: Rate of Police Reported Federal Statutes Crimes per 1,000 Persons, 1996 – 2014



Source: Statistics Canada, Incident Based Uniform Crime Reporting Survey, Canada

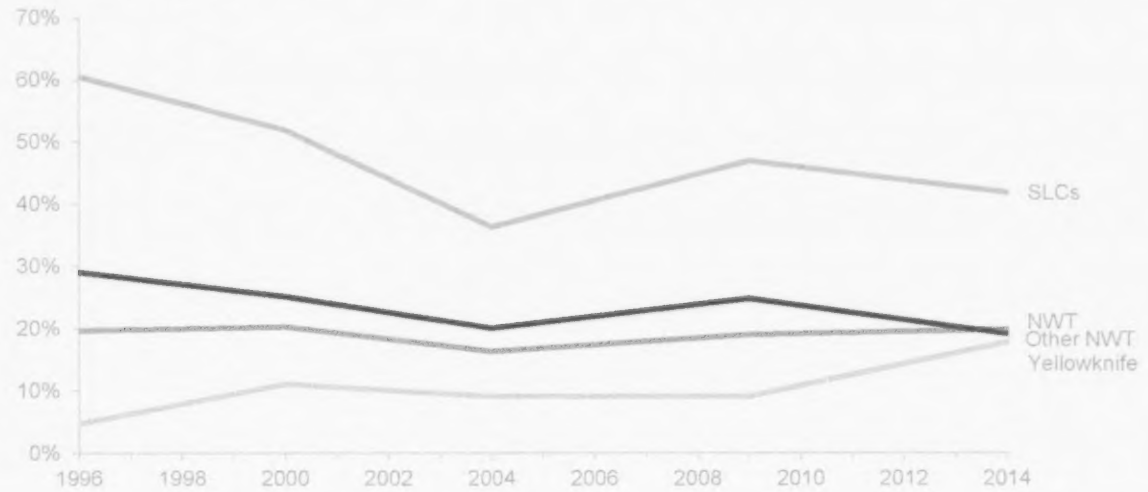
Housing

There are a few types of housing issues that are most often linked with resource development. These include: housing demand, the number of people who own a home and the number of people residing in a house.

The primary national indicator for measuring the demand for housing is core need. A household is in core need if they have an adequacy, suitability or affordability problem and do not have enough income to obtain appropriate housing. Adequacy problems refer to the condition of the dwelling, and whether it requires major repairs. Suitability refers to overcrowding, when a home does not have enough bedrooms for the size and makeup of the resident household, according to National Occupancy Standard requirements. Housing is unaffordable if the people in a household pay more than 30 percent of their gross income on housing. If a household has any of these three problems and its household income is below an income level calculated by the Northwest Territories Housing Corporation (NWTHC) called the Core Need Income Threshold (CNIT), then that household is in core need. The CNIT is the income needed in a particular community to own and operate a home or to rent in the private market without government assistance. The NWTHC updates the CNIT every two years to provide timely measurement of the true cost of shelter.

Core Need

Figure 29: Core need



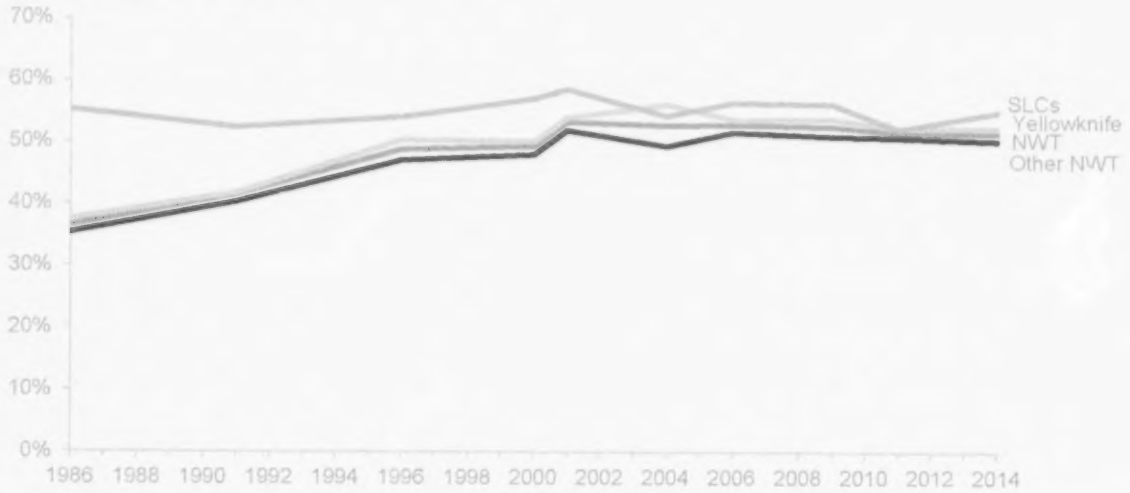
Source: 1996 and 2000 NWT Housing Needs Survey; 2004, 2009 & 2014 NWT Community Survey

In SLCs, the rate of core need fell significantly from 1996 to 2004, but increased until 2009. By 2014, core need resumed its trend downward and dropped in 24 communities. For Yellowknife, core need increased from 1996 to 2000 but has remained relatively unchanged from 2000 to 2009. In 2014, Yellowknife experienced an increase in core need.

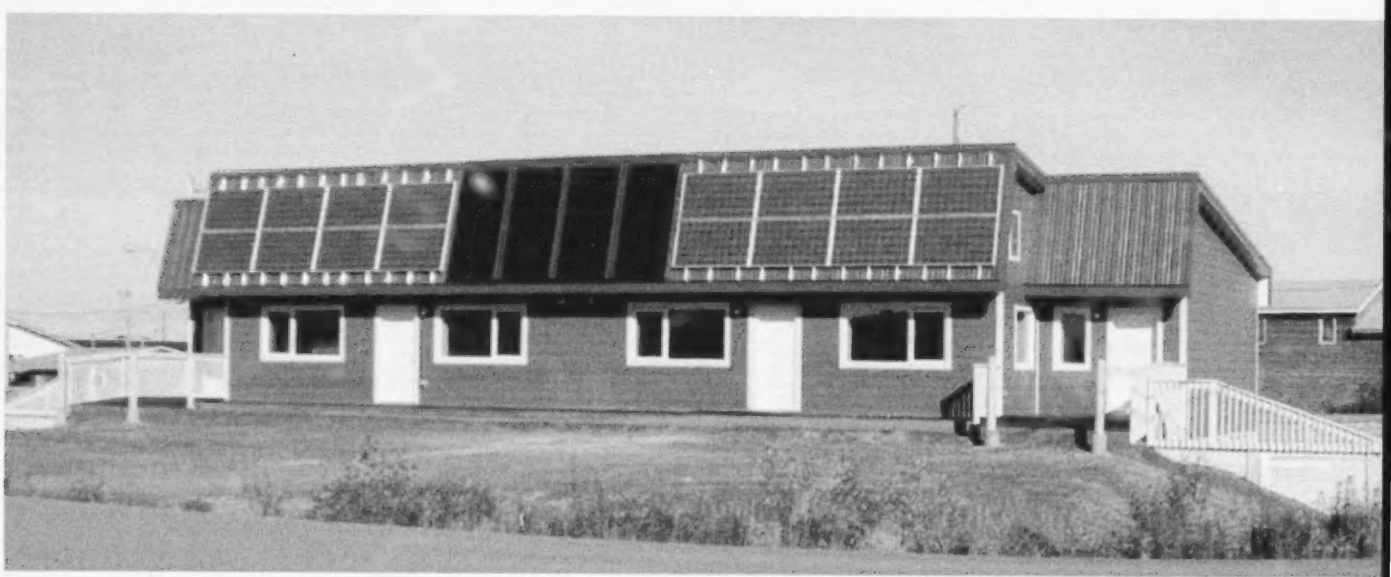
Ownership

There was a steady increase of people owning homes in other NWT communities from 1986 to 2001 with the rate remaining relatively unchanged to 2014. Since 1986, homeownership increased in Yellowknife until 2004 and then experienced small declines to 2014. In the SLCs the homeownership pattern has had slight variations but remained somewhat constant.

Figure 30: Ownership



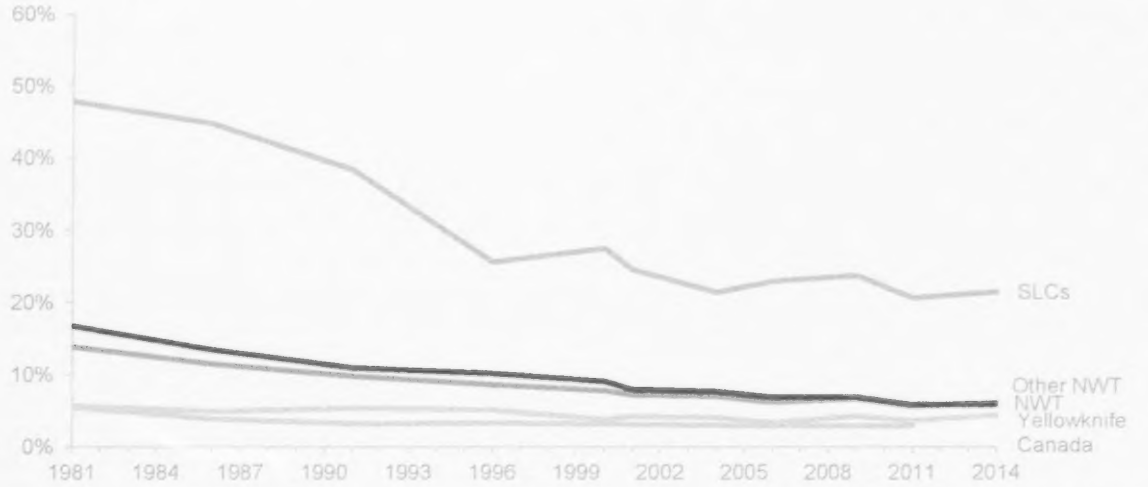
Source: 2000 NWT Housing Needs Survey; 2004, 2009 & 2014 NWT Community Survey; 1986, 1991, 1996, 2001 & 2006 Statistics Canada Census; 2011 Statistics Canada National Household Survey.



Northern sustainable house in Inuvik, NWT. Credit: NWTHC

Crowding

Figure 31: Crowding



Source: 2000 NWT Housing Needs Survey; 2004, 2009 & 2014 NWT Community Survey; 1986, 1991, 1996, 2001, 2006 & 2011

Overall, the number of dwellings with more than six people residing in the home has steadily decreased across the Northwest Territories, the most significant impact felt by the SLCs. In 2014 however, there was a slight increase across the Northwest Territories. In Yellowknife, Canada and the other NWT communities, the number of dwellings with more than 6 persons also fell, but at a less pronounced rate than the SLCs.

Possible Reasons for Changes

Changes in income resulting from resource development can influence the housing market. As incomes increase, housing becomes more affordable, households have greater resources to make repairs or to obtain housing that is appropriate to their family size. Households are also better able to access financing for repairs and home purchase. Given the strong link between core need and income, the availability of mining employment opportunities and other employment from economic development is important to decreasing core need.

Changes in household incomes may also provide some explanation for shifts in homeownership levels. In general, rising income levels lead to increases in homeownership rates. Availability of government homeownership programming, access to bank financing in smaller communities and lower interest rates also impact on homeownership levels. Another factor that may have an impact to the social housing market is that the Northwest Territories Housing Corporation revamped many of its programs since 2012 making them more accessible. New programs have also been introduced to assist low-middle income families and potential homeowners.

Statistics Canada reports tell us that the number of people employed in the resource industry dropped significantly in 2009 and onwards. This corresponds to the increase in core need that was reported in the *2009 NWT Community Survey*. In 2012 the NWT Bureau of Statistics reports that there was an increase in employment across the Northwest Territories, which could have an impact on both the level of homeownership and the decrease of core need in 24 communities within the NWT.

Family and household structures are experiencing change across the NWT. In the last ten years, the number of occupied dwellings has grown faster than the number of people has grown. Houses have fewer people living together as part of a single household. Values, family composition, what people want, what houses are ready for use and household income are all factors that help to shape the demand and supply of housing.

Credit: Rashaad Bhamjee

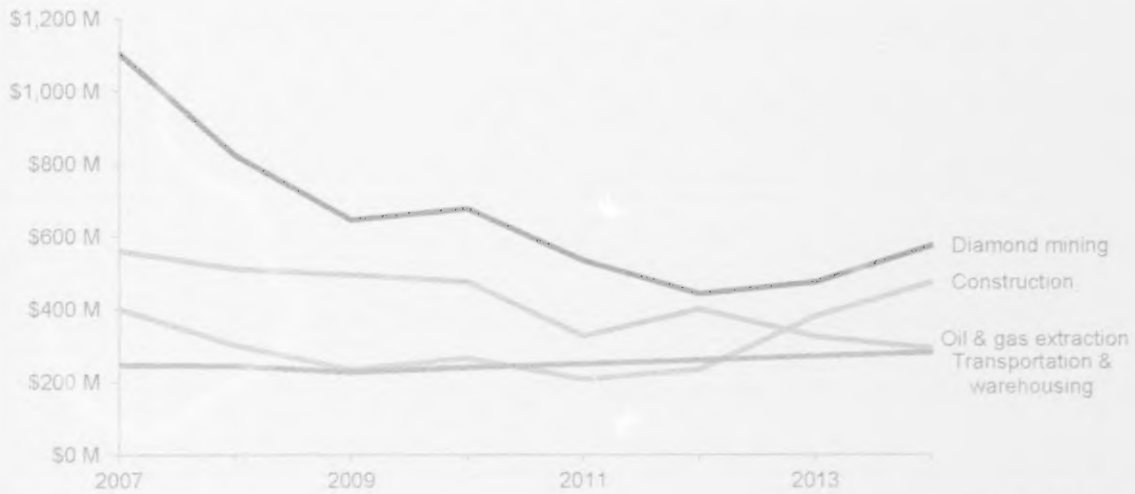
Business

NWT Gross Domestic Product

GDP is usually measured in real, or chained 2007 dollars to account for price inflation. Diamond mining's contribution to the economy has declined $529 million, or $1.1 billion in 2007 to $574 million in 2014; a decline of 48 percent. The industry also supports other business sectors, notably construction and transportation, which account for a further contribution of $474 million and $282 million respectively.

Figure 32: NWT GDP Sectors

Figure 33: Trend in NWT GDP Sectors



Source: NWT Bureau of Statistics

Mineral Development Strategy (MDS)

The MDS is a partnership strategy prepared by the GNWT and the NWT and Nunavut Chamber of Mines. The development of a MDS was a stated priority of the 17th Legislative Assembly, and it was released in November 2013. The MDS is intended to complement the GNWT's comprehensive Economic Opportunities Strategy. It establishes a comprehensive plan to ensure the long-term growth of a sustainable mining industry that will create jobs and economic opportunities for the people of the NWT.

The NWT has four operating mines that have provided significant benefits to the economy, including increased GDP, employment, procurement, and value-added industries such as manufacturing. However, mineral exploration in the NWT has been decreasing and there is concern that the contribution of mineral exploration and mine operations to the NWT economy may be significantly reduced within ten to 15 years.

Public input on development of the MDS was sought through a series of engagement sessions held between February and April 2013. A three person external expert advisory panel led engagement sessions with key stakeholders to gather input into what would be required for a comprehensive strategy. This advisory panel released a summary of this input in June 2013, which included feedback from communities, industry, Aboriginal governments and organizations, regulatory boards, chambers of commerce, education/training institutions, and non-government organizations.

The *MDS Implementation Plan (MDS-IP) Progress Report, April 1, 2014 – March 31, 2015* has been released. The *MDS-IP Progress Report* includes specific goals to better position the GNWT in developing a viable and responsible mineral economy for a sustainable future. In 2014-15, an amount of $1.87 million was allocated to implement 28 MDS action items. Some of the notable achievements include:

- second year implementation of the highly subscribed Mineral Incentive Program to increase grassroots exploration;
- increase in public outreach programs to attract investment;
- the establishment of the Mineral Industry Advisory Board; and
- a dedicated Business Development Services Advisor position.

The continued advancement of a MDS is a necessary step to increase expenditures in mineral exploration and deposit appraisals, and thereby encourage the productive use of resources and lead to positive impacts on the quality of life of NWT residents, government revenues, business retention and expansion.

It is critical that the NWT continue to promote investment in minerals exploration and development because this industry, and its spin off activities, represents the most significant economic activity in the territory. This will likely remain so for the foreseeable future, and the GNWT sees the vital role it plays in establishing the conditions to encourage investment and ensure a sustainable and diversified economy.

Industry is looking to the GNWT to show definitive plans for maintaining a strong and progressive economy post-devolution. The GNWT already has devolution role in managing and encouraging investment in this sector. The MDS and Implementation Plan will give industry and the people of the NWT a clear picture of how the GNWT intends to move forward to expand and develop economic activities in a sustainable manner.

Economic Opportunities Strategy

The need for a definitive made-in the-NWT approach to guide and increase growth, diversity and certainty in the NWT economy was highlighted by the 17th Legislative Assembly as a priority.

The *NWT Economic Opportunities Strategy (EOS)* has been developed to address this priority. It was created with the direct input of NWT residents, governments, organizations, industries and businesses; and authored, collaboratively, by our Territory's foremost economic stakeholders: the federal and territorial governments, the NWT Association of Communities, the NWT Chamber of Commerce and the Northern Aboriginal Business Association.

In 2014 the EOS Implementation Plan (EOS-IP) was released. The EOS-IP maps out the priorities, methods and resources to address the 117 recommended actions outlined in the Strategy. The goals are to support the NWT business community; grow a stable and attractive entrepreneurial environment; pursue major investment projects; and attract, retain and prepare residents to be active participants in the prosperous and sustainable new economic environment that we are building.

Four themes provide the cornerstones for this ten-year economic strategy: Creating a climate for Growth; Building on previous success; Regional Diversification; and ensuring People and Opportunity readiness. Within each theme, targets and objectives have been identified that will: "help to guide the development and realization of economic potential in all regions of the NWT - strengthening and diversifying the NWT's economy – and resulting in an enhanced quality of life for all NWT residents."

The EOS aims to grow and diversify the NWT economy outside of its rich resource sector – in areas such as tourism, agriculture, fishing, manufacturing and the traditional economy – and to create the environment in which grass roots economic opportunities can be envisioned, pursued and realized by NWT residents and businesses in our Territory's communities and regions.

Locally owned and operated airlines, hotels, restaurants, construction firms, telecommunications and logistics companies and service and supply industries are evidence of the capacity of northern and Aboriginal-owned businesses to leverage investments from resource development and to participate and invest fully in the NWT's economy as successful business owners, operators and investors.

To increase participation in resource development, the *NWT Economic Opportunities Strategy* recommends the continued pursuit and enforcement of socio-economic agreements and contracts with large project proponents that ensure employment and business and educational opportunities for NWT residents.

Credit: Diavik Diamond Mines

Net Effect on Government

Expenditure

Mineral resource development creates demands on government spending through several channels, including the need for new roads and other infrastructure, particularly in remote areas. Mining activity also contributes to wear and tear on existing infrastructure. Development and income growth can create social stresses addressed by social programs. Mineral development creates environmental stresses, which require monitoring and regulation. The government encourages economic growth and mineral development through labour market training programs and commerce programs so that communities can directly participate in the economic development of mining.

Revenue

Diamond mines make a substantial contribution to the NWT economy. However, the link between mines and the fiscal capacity of the GNWT is weak, largely due to the federal fiscal arrangements.

The most important source of revenue for the GNWT is the Territorial Formula Financing (TFF) grant, which provides the majority of the GNWT's revenues. TFF largely neutralizes changes in own-source revenue, because adding capacity to raise revenues results in a lower TFF entitlement, and vice versa. For example, a large increase in own-source revenue will be partially offset by a corresponding decrease of TFF, resulting in only a minimal increase in the GNWT's total revenues. In this way, the GNWT's total revenues are buffered from economic growth patterns and large swings in revenue.

The grant's formula provides stability and predictability from year to year since it is not directly affected by mineral development. The primary channels through which mineral development could be expected to affect TFF are population and estimates of GNWT revenues. The main influence of mineral developments on the TFF grant is their economic benefits, especially the ability to attract people to the NWT. The growth in the NWT population is an important factor in increasing TFF payments over time. Efforts by the mine managers to increase the number of employees who live as well as work in the NWT will increase the TFF grant and increase the tax base, directly in the case of personal income tax and indirectly through more consumer demand and therefore increased business activity.

Resource projects, such as the diamond mines, provide the GNWT with a significant portion of corporate income tax (CIT), fuel tax, and property tax revenues and the projects' employees provide payroll tax and personal income tax revenues. In 2014-15, diamond mines contributed $44 million to CIT, fuel, property and payroll tax revenue out of an aggregate total of $122 million. The contribution from diamond mining companies grew 11% from the previous year.

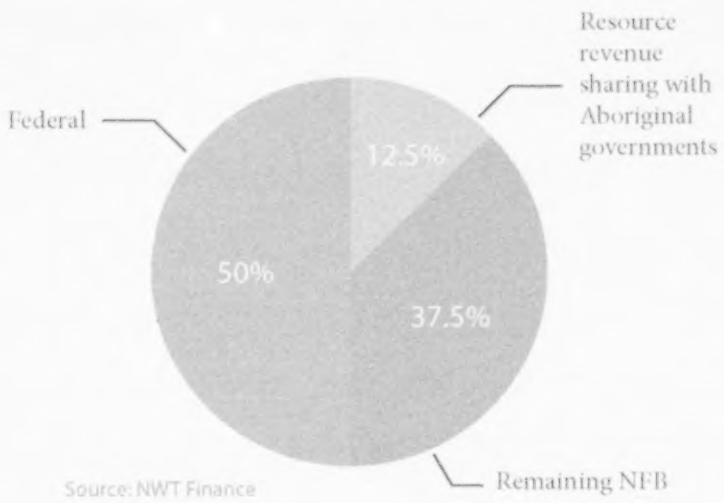
The GNWT collects all resource revenues, including royalties from the diamond mines. On an accrued basis, the GNWT collected a total of $63 million in 2014-15, but this is shared with the federal government and Aboriginal organizations.

Allocation of Resource Revenue

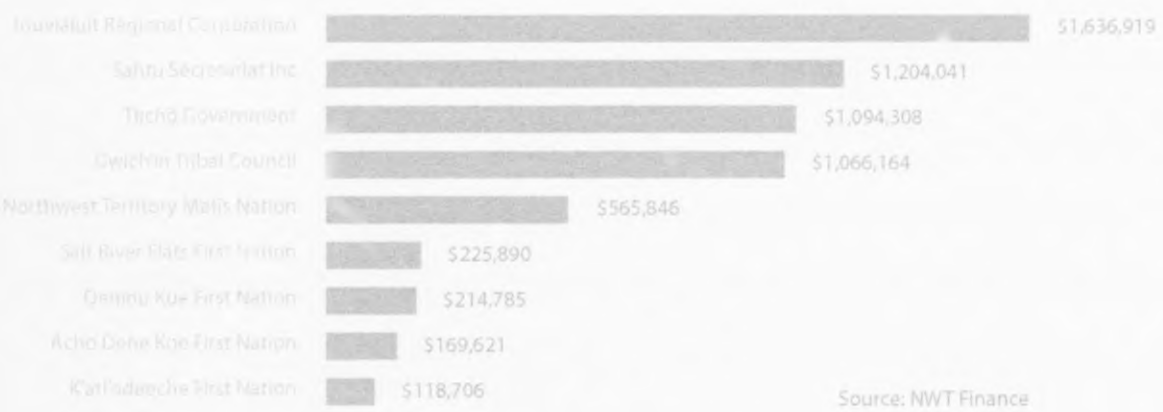
As of April 1, 2014, the GNWT collects all NWT resource revenues and shares with Canada and Aboriginal organization signatories to the Northwest Territories Land and Devolution Agreement. Under the Agreement, Canada receives 50 per cent of all resource revenues, excluding land claim payments, which are paid out according to settled agreements and not part of NWT resource revenues. The remaining half of resource revenues is called the net fiscal benefit (NFB) to the GNWT. A quarter of the NFB is dedicated to Aboriginal governments, pursuant to the Northwest Territories Intergovernmental Resource Revenue Sharing Agreement. A quarter of the remainder is allocated to savings in the Heritage Fund. The balance is dedicated towards strategic infrastructure and debt repayment.

Revenue Distribution

For 2014/15, resource revenue collected was distributed among nine Aboriginal organizations that were signatories to the Devolution agreement. The total $6.3 million shared was allocated in accordance to the agreed-to formula based on population and cost of living factors.



Source: NWT Finance



Source: NWT Finance

Glossary | Words to Know

Crimes

Violent Crimes - Offences under the *Criminal Code*, such as homicide, attempted murder, assault and sexual assault.

Property Crimes - Offences under the *Criminal Code*, such as non-violent theft, breaking and entering, fraud, and possession of stolen goods.

'Other' *Criminal Code* crimes - Offences under the *Criminal Code*, such as probation or bail violations, prostitution, illegal gambling, and arson.

Other Federal Statute crimes - Offences not under the *Criminal Code*. These can include offences under the *Controlled Drugs and Substances Act, Firearms Act*, among others.

Employment Rate

The percent of people aged 15 and older who have jobs.

Labour Force

Those people 15 years of age or older who are working or who are actively looking for work, laid off for a time and thought to return to work, or those who have made some plan to start a new job.

Participation Rate

The percent of people, 15 years of age and older, who are in the labour force.

PYLL - Potential Years of Life Lost

PYLL is found by taking away the age at which a person dies from an average life span that is 75 years of age. For instance, a person who died at age 65 would have a PYLL of ten (found by: 75 - 65 = 10).

A person who died at age 20 would have a PYLL of 55 (found by: 75 - 20 = 55).

The PYLL of an entire group of people is the sum of all the years of life lost by those who died before reaching the age of 75.

Single-Parent Families

Single-parent families have a parent at home with no spouse or common-law partner. They also have at least one child who has never been married and who lives in the home.

Socio-Economic

Socio-economic impacts include social, economic, and fiscal impacts. Social impacts can be sorted into two groups: demographic and socio-cultural.

Demographic Impacts: changes in people, such as the population, the number of men and women, how old everyone is, migration rates, and the services required by each group.

Socio-cultural Impacts: changes in social structures, the way people organize, relationships, and in culture and value systems such as language or beliefs.

Economic Impacts: change in the number of people with jobs, how much moeny they make, and how much business occurs.

Fiscal Impacts: the economic consequences of development for government organizaitons.

Unemployed

The number of people who, in the week prior to the survey:

1. were without work, had actively looked for work in the last four weeks, and were ready to work; or

2. had been laid-off for a time and thought they would soon return to their job; or

3. had sure plans to start a new job in the next four weeks.

Unemployment Rate

The percent of the labour force that is without jobs but that is looking for work.

Credit: Rashaad Brantley

Appendix A

Company Predictions of Mine Activity

Below are predictions made by BHP, Diavik and De Beers amout the possible impacts on the NWT from each of their projects. These statements are quoted from material submitted for the envirionmental assessment of each project. In the case of the BHP predictions, the Ekati Mine was sold to Dominion Diamond in 2012.

Company	Predicted Impact
Community, Family and Individual Well-Being	
BHP	"...project employment could aggravate existing social problems by increasing stress and related alcohol abuse, by alienating people from traditional lifestyles and by increasing the pace of change in communities already having difficulty dealing with change."
	"Small communities with less wage employment experience, particularly industrial employment, will be more affected by internal factors that determine their ability to handle change...even a half dozen people working directly for the project could increase total community personal income by as much as 15 percent. The impacts in these communities will be in direct relationship to a community's ability to cope with rotational employment absences and spending of new wage employment dollars."
De Beers	De Beers noted that expansion of the wage economy into communities, through the development of the Snap Lake Diamond Project, may exacerbate certain pre-existing dysfunctional conditions in the communities. It clarified this was a reference to substance abuse, drug addiction, suicide rates, teen pregnancy, fetal alcohol effect and fetal alcohol syndrome, sexual abuse, HIV/Aids, and Hepatitis C. "Job training programs may provide incentives to enrol in substance abuse and alcohol addiction treatment. This, in turn, may have long-lasting physical and mental health benefits to the individual being treated."
Diavik	"An inflow of single transient workers, and students involved in rotational employment may bring an element of instability to, and affect the human health of, the community."
	"Increased disposable income spent on alcohol and drugs may worsen human health conditions of individuals, families and the community."
	"The Diavik Diamonds Project, while offering benefits, could potentially add to the complexity of human health issues in the communities."
BHP	The Environmental Impact Statement (EIS) talked about indirect impacts of employment "resulting in greater family violence and family breakdown".
	"The 'at work' rotation is well below the length of time at which a measurable deterioration in worker... morale and family relationships begins (21 days)..."
De Beers	"Expansion of the wage economy into communities, through the development of the Snap Lake Diamond Project, may exacerbate certain pre-existing dysfunctional conditions in the communities." De Beers clarified this was a reference to, among other things, teen pregnancy.
Diavik	"Respecting ... rotation work and associated absenteeism from home, there would likely be a period of personal and family adjustment lasting about two years. Potential effects could include additional demands on family and social services and protection services."
Single-Parent Families	
BHP	"Absence from home for two weeks at a time could have an impact on marriages ... Stress caused by a number of factors – need for money, separation, suspected infidelity, are major causes of marriage breakdown. With a rotational work system, marriages are likely to experience some of the stress of separation. At the same time, the availability of jobs may relieve some financial stress."
	"... Rotational shift work ... could create marital pressure for families not used to separation. Studies indicate that 68 percent of the Canadian long distance commuters work force are married (includes non Aboriginal people as well); however, the number of divorced employees is double that of the general public."
De Beers	"...families may break up as the educated or skilled family members go elsewhere to seek employment."
	"There is increased risk of marital and family breakdown associated with stop-overs in Yellowknife as some employees (mostly male) engage in extra-marital affairs."

Children Receiving Services	
BHP	In the 1995 EIS potential effects on human health resulting from identified causes included: "... an increase in social disruption with potential strain on policing and social services ..."
De Beers	"Wage employment for an individual may result in a decline in reliance on social services, and a corresponding improvement in family relationships."
	"If many individuals and families are coping poorly with the adjustments, the demands for rigorous and relevant support services will increase. Such support mechanisms may include marital/relationship counselling, child care services."
Diavik	"Experience from previous northern projects indicates that new employees with large pay cheques tend to "blow" their money on alcohol first, taper off, and then spend more money and time on the home and family (Chenard 1979). Marriage and family problems caused by alcohol and absenteeism from home are prevalent in the younger generation and would place a short-term demand on counselling and protection services."
	"There would be an initial period of adjustment for employees and families ... During the adjustment period there may be increased demand for protection services."
Family Violence and Other Crimes	
BHP	There may be "negative impacts of increased income such as alcohol and drug abuse, resulting in greater family violence and family breakdown."
	"... social problems existing within the Aboriginal communities may be compounded by an increase in wages. Additional expendable income can lead to alcohol and drug abuse and intensify existing problems such as violence."
De Beers	"In family situations where conflict, violence or other domestic problems are already present such issues may be exacerbated by the demands of the rotation schedule, resulting in increased social dysfunction and instability."
	"...in families with frequent conflict between spouses, decisions concerning the use of income may exacerbate conflict. Children may also be directly affected as victims of family violence and conflict."
Diavik	"...income and absence due to rotational employment may result in... family conflict."
BHP	"If alcohol and drug abuse (and crime that results from these abuses) increase, ... additional law enforcement personnel would be required. ... if the 'fast buck' businesses converge on larger centres, particularly Yellowknife, policing agencies may have to deal with more fraud."
	"Yellowknife is the most likely centre to experience an increase in drug trafficking. ... Since many NWT residents employed by the project will have to pass through Yellowknife on their way home, there is a possibility that readily available drugs may be purchased and carried to smaller communities."
	"...if alcohol consumption increases, crime (particularly assaults) could increase."
	"... social problems existing within the Aboriginal communities may be compounded by an increase in wages. Additional expendable income can lead to alcohol and drug abuse and intensify existing problems such as violence."
De Beers	"As individuals and families try to cope with the lifestyle changes imposed by the rotational work schedule, the social fabric (i.e., relationships and support systems) of communities will be affected. Community members at large may suffer from the effects of friends, extended family, or neighbours resorting to substance abuse or alcoholism when dealing with emotional issues, living in high conflict or violent home situations, or neglecting community and family responsibilities. Social capacity or stability may decrease."
Diavik	"Respecting ... rotation work and associated absenteeism from home, there would likely be a period of personal and family adjustment lasting about two years. Potential effects could include additional demands on... protection services."
	"Employment, income, transportation and closure have the potential of affecting local protection services."
Housing	
BHP	"Regular income can improve the standard of living of both individuals and communities. People with regular incomes can purchase/build their own homes, relieving some of the stress on housing in many communities. They can purchase more goods ... and not only relieve stress of impoverished lifestyle, but circulate their dollars through the local economy to assist in overall improvements in the standard of living."
De Beers	"With a consistent monetary income, individuals will have a greater level of security in providing for basic material needs, such as food, housing, or clothing."
Diavik	"Employment income and associated economic changes should enable residents of study area communities; [sic] particularly the smaller Dene, Métis and Inuit communities to privately purchase or rent houses."

Cultural Well-Being and Traditional Economy	
BHP	The impact of the project on traditional Aboriginal lifestyle / culture was predicted to be negative but small.
De Beers	[for Aboriginal workers] "... impacts are primarily associated with... functioning in a pre dominantly non-Aboriginal work environment and culture."
	"The limited amount of time in the community may limit individuals' ability to pursue Aboriginal traditional activities, which impacts on individuals' lifestyle and the maintenance of a cultural identity."
	"The family as a whole will also be affected by the limited time available to engage in traditional activities with all family members present. This may complicate efforts to maintain cultural traditions and identity."
	"It is not possible to predict with reasonable certainty whether individual and community involvement mining activities will negatively or positively impact on the subsistence economy in communities."
Diavik	"... the context for expression important to the survival of Aboriginal languages could change."
	"Employment at the mine site in an English only environment may pose a risk to Aboriginal languages. The presence of other Aboriginal language speakers at the mine site and the opportunity for Aboriginal workers to reside in their home communities may reduce this risk."
	"...wage based activities may erode... Dene, Métis and Inuit culture."
	"Out-migration from smaller Aboriginal communities affect[s] community organization and weaken[s] culture."
	"Industrial work may erode traditional harvesting practices."
	"Possible in-migration of job seekers to Yellowknife may change... harvesting patterns... Conflicts resulting from increasing competition for land and resources may alienate traditional land users from important harvesting activities."
	"The renewable resource economy of study area communities should benefit from the proposed Project as more harvesters would have money to purchase equipment and supplies needed for harvesting activities."
Non-Traditional Economy	
Average Income	
BHP	"Project-generated employment could increase NWT wage income by three percent per year in the construction phase and five percent per year in the operations phase assuming 1995 employment levels. Aboriginal communities and Coppermine could experience substantial increases in earned income in both the construction and operations phase."
	"The project could also cause an increase of total earned income in these [Aboriginal] communities by over 33 percent."
	"Induced employment from household respending of NWT Diamonds Project direct and indirect employment dollars could generate an additional 155 jobs in the NWT. Annual income for these jobs will be approximately $5 million."
De Beers	"Job opportunities will largely accrue to the primary communities with the result being changes in the economic circumstance of many families of those communities as well as the communities themselves."
	During construction, "Total labour income impact for the NWT is estimated at some $102 million."
	"Annual labour income impacts for the NWT in the operations phase are estimated at some $81.2 million."
Diavik	"Employment and income effects associated with the proposed project are positive, long lasting, and complementary to northern and Aboriginal aspirations and needs."
	"The construction phase is ... projected to increase labour income in the NWT by $182 million (all values are presented in constant 1997 dollars). ... operation of the proposed Project will also increase labour income in the local study area by $27 million..."
Proportion of High-Income Earners	
BHP	"In smaller communities, mine wage employment could widen the gap between 'haves' and 'have nots' in the community."
De Beers	"In communities where employment opportunities remain limited to those created by the Snap Lake Diamond Project, community divisions and fractions may arise between 'have' and 'have-nots', which may exacerbate other social problems in the community."
Diavik	"Project workers of Aboriginal ancestry seeking residency in Yellowknife, N'dilo and Detah may be more affluent than other Aboriginal people. In small communities such as N'dilo and Detah this situation could increase the gap between the 'have' and 'have nots' resulting in stresses to interpersonal and family relationships."
Income Assistance Cases	
BHP	"In the study area .... Assuming that 400 people would no longer need social assistance, this could mean a $1.4 million annual savings..."

De Beers	"As the household income level is increased for families reliant on welfare, the family will no longer be eligible for welfare assistance."
Diavik	"Other benefits of the proposed Project would include ... a fall in social assistance ... payments as more NWT residents gain employment."
Employment Rate	
BHP	"... the NWT Diamonds Project will have a significant impact on... communities that... fail to benefit from other major industries... While Yellowknife... will be a major beneficiary... of new jobs, the smaller First Nations communities, as well as Coppermine and Hay River, can also expect significant employment benefits."
De Beers	"... the Project will create 450 construction jobs and in excess of 500 jobs in the operation of the mine facility. Job opportunities will largely accrue to the primary communities..."
Diavik	"Cumulative employment and income effects associated with the proposed Project would be positive, long lasting, and complementary to northern and Aboriginal aspirations and needs and should address one of the most pressing issues in the study area communities – lack of employment and business opportunities."
Unemployment Rate	
BHP	"Hiring by the project is expected to reduce unemployment in Aboriginal communities from almost 40 percent to 30 percent."
De Beers	"Through the creation of direct, indirect and induced employment opportunities, it is expected that the rates of unemployment will be reduced in Yellowknife, other primary study communities and the employment catchment communities."
Diavik	"The proposed Project would ... contribute to a reduction in unemployment..."
Participation Rate	
BHP/De Beers	Neither BHP nor De Beers referred to the participation rate. However, statements on employment and unemployment imply the participation rate would increase.
Diavik	"The proposed Project would ... contribute to ... an increase in participation rates."
Education	
BHP	"Employment possibilities with the NWT Diamonds Project can provide an incentive for people to stay in school, if only to attain the education level required for apprenticeship positions."
	"Government, community and Proponent sponsored 'stay in school' programs will encourage more young people to complete at least Grade 10."
De Beers	"The opportunity for future wage employment may also motivate unqualified individuals to upgrade their educational level and general life skills to meet project standards for employment eligibility."
	"It is possible too, that individuals participating in training or educational programs will inspire other family members to improve their educational level or join in various skills development programs."
	"The achievement of a certain level of education and skills may, in the longer run, spur demands for further education and training programs..."
Diavik	"Diavik initiatives would contribute to the development of able and skilled employees, the support and encouragement of future employees, and the reduction of employment barriers. Through proposed education and training initiatives, opportunities for all northerners would increase..."
Business	
BHP	"... exploration activity has allowed businesses to start the expansion required to adequately service an expanded northern mining industry, and has added to the local supply of service and retail operations... Positive impacts far outweigh negative impacts in Yellowknife, since a project such as the NWT Diamonds Project is needed if Yellowknife is to continue to grow and prosper."
	"On the economic side, the impacts [for First Nations communities] would be positive. Increased dollars in the economy could foster the expansion of existing businesses or the start-up of new businesses, particularly in the retail and personal services area. In turn this could generate more employment and wage income."
De Beers	"If financial and human resources are spent in the community to provide basic education and skills training, but no support is provided to use these skills for local business initiatives... economic development at the community level will not occur."
	"Given that the mine is a major development project, it is expected to be a catalyst for benefiting Aboriginal and northern business."

Diavik	"Tourism services and infrastructure may improve and expand, particularly in the smaller Dene, Métis and Inuit study area communities..."
	"... initiatives could result in the expansion of existing businesses, the creation of new businesses..."
	"Use of the rail system to transport goods and fuel will have a positive affect... its continued use would enhance Hay River and Enterprise as northern gateway communities."
	"Anticipated increases in economic activity should stimulate local economies and support their development."
Net Effect on Government	
BHP	"Annual costs to the federal and territorial governments due mainly to the 1,000 people moving to the NWT as a result of the NWT Diamonds Project are expected to be $4 million and $10 million, respectively. Offsetting these costs is a potential $3 million annual savings in social assistance and subsidy payments as a result of increased employment..."
De Beers	"If many individuals and families are coping poorly with the adjustments, the demands for rigorous and relevant support services will increase."
Diavik	"Other benefits of the proposed Project would include a reduction in government expenditures due to a fall in social assistance and unemployment payments."
Sustainable Development	
Secondary Industry	
BHP	"... final cleaning and sorting of rough diamonds ... is most likely to be Antwerp in Belgium."
De Beers	During the environmental assessment of the De Beers Snap Lake Project, De Beers indicated that it would support GNWT efforts to develop a secondary industry.

Appendix B

Industrial, Social & Political Events

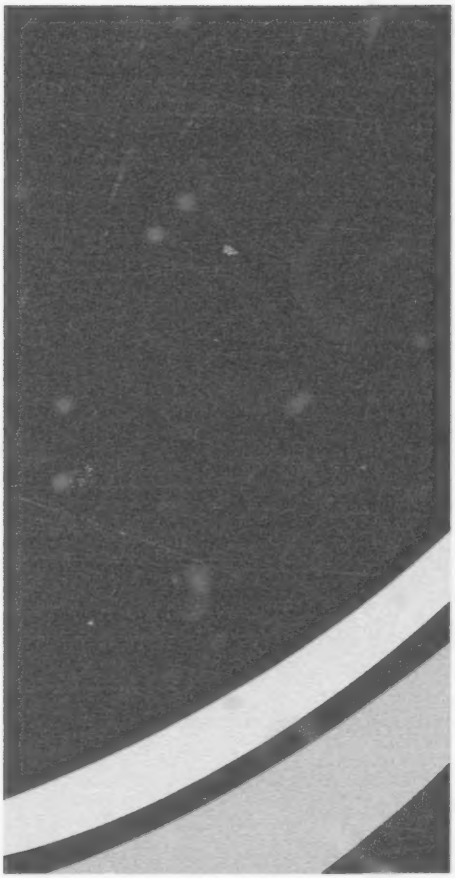
Date	Event
Oct 1996	The GNWT signed an SEA with BHP Billiton for the Ekati Project.
1997	Royal Oak Mines laid off about 40 workers at Giant Mine.
1997 - 2003	Miramar Con Mine laid off about 120 workers.
	Licences were issued for oil and gas exploration. This started with the Sahtu in 1997, then Fort Liard and the Beaufort Delta Region. The size of rights issued increased as each new area was opened for exploration.
Jan 1997	Policy changes called "Productive Choices" took effect and changed how and to whom income assistance is given.
	Ekati Mine construction began.
Dec 1997	Royal Oak Mines closed Colomac Mine.
Jan 1998	Lupin Mine (Nunavut) entered care and maintenance status, laying off about 500 workers.
May 1998	Miramar Con Mine halted operations in labour strike.
Oct 1998	Ekati Mine began commercial operations.
	NWT Child and Family Services Act came into effect. The number of children receiving services may have increased due to this Act. The new Act created a plan of care agreement as a new way to provide services to children. Under a plan of care agreement, children could still be living in their parents' home but receive services from the Department of Health and Social Services. This was not an option under the old Act. Since the new Act came into force, parents have been more inclined to seek services for their children or family, now that they do not have to give up parental rights. Since the new Act, most of the increase in children receiving services has been from children who are living at home. Of these, most service agreements were voluntary, not court-ordered.
1999	Royal Oak Mines entered receivership. Mine transferred to AANDC.
Feb 1999	BHP sorting and valuation facility opened in Yellowknife.
Apr 1999	Territory of Nunavut created.
Jun 1999	Sirius Diamonds opened a cutting and polishing facility in Yellowknife.
Jul 1999	Miramar's Con Mine labour strike ended and operations resumed.
Oct 1999	The GNWT signed an SEA with Diavik Diamond Mines for the Diavik Project.
2000	Giant Mine operations began again on a smaller scale, with less than 100 employees.
	A government-wide coordinated effort called Maximizing Northern Employment started. Its purpose was to build partnerships with Aboriginal governments and the private sector.
Mar 2000	Deton'Cho Diamonds opened a cutting and polishing facility in Yellowknife.
Apr 2000	Lupin Mine operations began again with a smaller workforce.
Dec 2000	Diavik construction began.
	Arslanian Cutting Works opened a cutting and polishing facility in Yellowknife.
Early 2002	Ekati Mine opened Koala North pit for underground mining.
2003	Tiffany & Co. opened a cutting and polishing facility in Yellowknife under the name Laurelton Diamonds.
Jan 2003	Diavik Mine started production.
Apr 2003	Federal *Youth Criminal Justice Act* came into effect.
Aug 2003	Operations suspended at Lupin Mine (Nunavut), affected about 305 employees.
Nov 2003	Miramar closed Con Mine.
Apr 2004	NWT *Youth Justice Act* came into effect.

May 2004	The GNWT signed an SEA with De Beers Canada for the Snap Lake Project.
Feb 2005	De Beers Canada began construction of Snap Lake Diamond Mine.
Apr 2005	NWT *Protection Against Family Violence Act* came into effect.
Aug 2005	Tłı̨chǫ Land Claim and Self-Government Agreement effective date.
Early 2006	Ekati Mine opened Panda pit for underground mining.
May 2006	Canada Dene Diamonds closed.
2007	A new model for income assistance was created.
Jan 2007	The GNWT signed an SEA with Imperial Oil Resources Ventures, ConocoPhillips Canada, and Shell Canada Energy for the Mackenzie Gas Project.
Oct 2007	De Beers Snap Lake Mine officially opened.
Late 2007	Ekati Mine opened Koala pit for underground mining.
Jun 2008	De Beers Snap Lake Mine began commercial operations.
Oct 2008	Crossworks Manufacturing Ltd. opened a diamond processing factory in Yellowknife.
Nov 2008	GNWT Ministers of Education, Culture and Employment and ITI, and representatives from BHP, Diavik and De Beers signed a Memorandum of Understanding to address Northern workforce attraction and retention issues.
Late 2008	Global credit crunch and economic downturn occurred. A number of projects and contracts are postponed or cancelled. Job losses increased.
Early 2009	Global economic downturn led to reduced demand for diamonds. In response, Diavik and De Beers each planned two six-week temporary shutdowns in the summer and winter. Only the summer shutdown took place for each mine.
Nov 2009	Diavik announced plans to hire 150 new employees. Soon afterward, De Beers announced plans to hire 175 new employees.
Dec 2009	Arslanian Cutting Works and Polar Bear Diamond Factory closed.
Apr 2010	Responsibility for the Public Housing Rental subsidy program was transferred back to the NWTHC from the Department of Education, Culture and Employment.
Aug 2011	The GNWT signed an SEA with Canadian Zinc for the Prairie Creek Project.
Late 2012	Sale of the Ekati diamond mine from BHP Billiton Canada Inc. to Dominion Diamond Mines Corporation, a wholly-owned subsidiary of Harry Winston Diamond Mines Corporation was announced, with transfer of ownership to be completed in 2013.
Jan 2013	Mackenzie Valley Environmental Impact Review Board (MVEIRB) released its Report on the proposed Fortune NICO project. The Report included a requirement for Fortune to enter into a SEA with the GNWT for the NICO project.
Jun 2013	The GNWT signed a SEA with De Beers Canada for the Gahcho Kue project.
Jul 2013	The MVEIRB released its Report for the proposed Gahcho Kue project. The Report referenced the completed SEA between De Beers and the GNWT and stated that the SEA should satisfy the need for a socio-economic follow-up program for the Gahcho Kue project.
	MVEIRB released its Report for the proposed Avalon Nechalacho project. The Report included a requirement for Avalon to enter into a SEA with the GNWT for the Nechalacho project.
2015	Snap Lake Mine water license extended.
Dec 2015	Snap Lake Mine goes under care and maintenence citing a downturn in the cost of diamonds as well as technical difficulties mining the property

The GNWT takes no responsibility for financial losses suffered
as a result of reliance on the information in this report.

Communities and Diamonds

2015 **Annual Report** of the Government of the Northwest Territories under the Ekati, Diavik and Snap Lake Socio-Economic Agreements



Government of
Northwest Territories